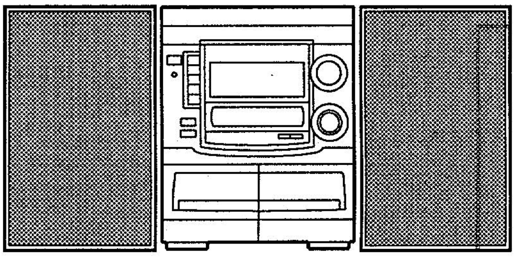
aiwa

aiwa SERVICE

NSX-S505
NSX-S506



COMPACT DISC STEREO
CASSETTE RECEIVER

- BASIC TAPE MECHANISM : 2ZM-3MK2 (PR4NM,YPR4N),6ZM-3 YPR2N
- BASIC CD MECHANISM : 4ZG–1 (Z3DSHNM,Z4SHMD,Z4DSHNC)
- TYPE : HR,HE,EZ,K (505),EZ(506)

SYSTEM	CD CASSEIVER	SPEAKER	REMOTE CONTROLLER
NSX-S505	CX-NS505 (TYPE : HR,HE,EZ,K)	SX–FNS505	RC - 7AS06
NSX-S506	CX-NS506 (TYPE : EZ)	SX–ANS706	

SERVICE MANUAL

S/M Code No. 09–985–254–9FE

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SPECIFICATIONS

<FM Tuner section>

Tuning range	87.5 MHz to 108 MHz
Usable sensitivity(IHF)	HR,HE : 13.2 dBf EZ,K : 16.8 dBf
Antenna terminals	75 ohms (unbalanced)

<MW Tuner section>

Tuning range	531 kHz to 1602 kHz (9 kHz step) 530 kHz to 1710 kHz (10 kHz step)
Usable sensitivity	350 uV/m
Antenna	Loop antenna

<SW Tuner section> (HE, HR)

Tuning range	5.900 MHz to 17.900 MHz
Antenna	Wire antenna

<LW Tuner section> (EZ, K)

Tuning range	144 kHz to 290 kHz
Usable sensitivity	1400 uV/m
Antenna	Loop antenna

<Amplifier section>

Power output	HE,HR : Rated 85 W + 85 W (6 ohms, THD 1%, 1 kHz) Reference 100 W + 100 W (6 ohms, THD 10%, 1 kHz) EZ : Rated 60 W + 60 W (6 ohms, THD 1%, 1 kHz/DIN 45500) Reference 75 W + 75 W (6 ohms, THD 10%, 1 kHz/DIN 45324) DIN MUSIC POWER : 180 W + 180 W K : Rated 50 W + 50 W (6 ohms, THD 1%, 1 kHz/DIN 45500) Reference 62 W + 62 W (6 ohms, THD 10%, 1 kHz/DIN 45324)
Total harmonic distortion	HE,HR : 0.05% (70 W, 1 kHz, 6 ohms, DIN AUDIO) EZ : 0.07% (50 W, 1 kHz, 6 ohms, DIN AUDIO) K : 0.07% (40 W, 1 kHz, 6 ohms, DIN AUDIO)
Inputs	HE,HR : VIDEO/AUX : 210 mV(adjustable) MD : 210mV (adjustable) MIC1, MIC2 : 1.4mV (10 kohms) EZ,K : VIDEO/AUX : 150 mV(adjustable) MD : 150mV (adjustable) MIC1,MIC2 : EZ : 1.0 mV (10 kohms) K : 1.8 mV (10 kohms)
Outputs	LINE OUT: 200mV SUPER WOOFERS : 2.25 V (HE,HR), 1.9 V (EZ), 1.75 V (K) SPEAKERS: accept speakers of 6 ohms or more SURROUND SPEAKERS: accept speakers of 8 ohms to 16 ohms PHONES (stereo jack) : accepts headphones of 32 ohms or more

<Cassette deck section>

Track format	4 tracks, 2 channels stereo
Frequency response	K : 50 Hz - 15000 Hz CrO_2 tape : 50 Hz – 16000 Hz Normal tape : 50 Hz – 15000 Hz
Recording system	AC bias
Heads	Deck 1 : playback head x 1 Deck 2 : Recording/Playback head x 1/ erase head x 1

<Compact disc player section>

Laser	Semiconductor laser (λ =780 nm)
D-A converter	1 bit dual
Signal-to-noise ratio	85 dB (1 kHz, 0 dB)
Harmonic distortion	0.05 % (1 kHz, 0 dB)
Wow and flutter	Unmeasurable

<Speaker system SX–FNS505>(HE,HR,EZ,K<505>)

Cabinet type	HR,HE,K : 3 way, bass reflex (magnetic shielded type) EZ : 3 way, bass reflex with surround speaker(magnetic shielded type)
Speakers	Woofer : 160 mm cone type Tweeter : 80 mm ceramic type Super tweeter : 20 mm ceramic type Surround speaker : 80 mm cone type
Impedance	Front speaker : 6 ohms Surround speaker : 8 ohms
Output sound pressure level	87 dB/W/m
Dimensions (W x H x D)	250 x 324 x 275 mm
Weight	HR,HE,K : 3.7 kg, EZ : 3.9 kg

<Speaker system SX–ANS706>(EZ<506>)

Cabinet type	4 way, bass reflex with surround speaker(magnetic shielded type)
Speakers	Woofer : 160 mm cone type Tweeter : 50 mm cone type Super tweeter : 20 mm ceramic type Cardioid speaker : 80 mm cone type Surround speaker : 80 mm
Impedance	Front speaker : 6 ohms Surround speaker : 8 ohms
Output sound pressure level	87 dB/W/m
Dimensions (W x H x D)	250 x 330 x 293 mm
Weight	4.6 kg

<General>

Power requirements	HR,HE : 120 V/220 - 230 V/240 V AC switchable, 50/60 Hz EZ,K : 230 VAC, 50 Hz
Power consumption	HR,HE : 155 W EZ,K : 120 W
Dimensions of main unit	260 x 329.1 x 344.5 mm
Weight of main unit	HE,HR : 7.3 kg EZ : 6.7 kg K : 6.5 kg W

- Design and specifications are subject to change without notice.

- The word "BBE"and the "BBE symbol" are trademarks of BBE Sound, Inc.
  Under license from BBE Sound,Inc.

- Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.
  "DOLBY" and the double-D symbol DD are trademarks of Dolby Laboratories Licensing Corporation.

NOTE ON BEFORE STARTING REPAIR

1. Forced discharge of electrolytic capacitor of power supply block

When repair is going to be attempted in the set that uses relay circuit in the power supply block, electric potential is kept charged across the electrolytic capacitors (C101, 102) even though AC power cord is removed. If repair is attempted in this condition, the secondary defect can occur.
In order to prevent the secondary trouble, perform the following measures before starting repair work.

Discharge procedure

① Remove the AC power cord.
② Connect a discharging resistor at an end of lead wire that has clips at both ends. Connect the other end of the lead wire to metal chassis.
③ Contact the other end of the discharging resistor to the positive (+) side (+VH) of C101. (For two seconds)
④ Contact the same end of the discharging resistor as step ③ to the negative (-) side (-VH) of C102 in the same way. (For two seconds)
⑤ Check that voltage across C101 and C102 has decreased 1 V or less using a multimeter or an oscilloscope.

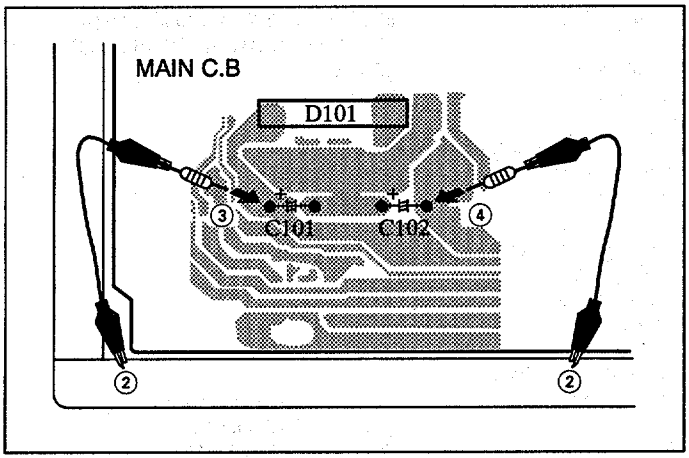


Fig-1

Select a discharging resistor referring to the following table.

Charging voltage (V) (C101, 102)	Discharging resistor (Ω)	Rated power (W)	Parts number
25-48	100	3	87-A00-247-090
49-140	220	5	87-A00-232-090

Note: The reference numbers (C101, C102) of the electrolytic capacitors can change depending on the models. Be sure to check the reference numbers of the charging capacitors on schematic diagram before starting the discharging work.

2. Check items before exchanging the MICROCOMPUTER

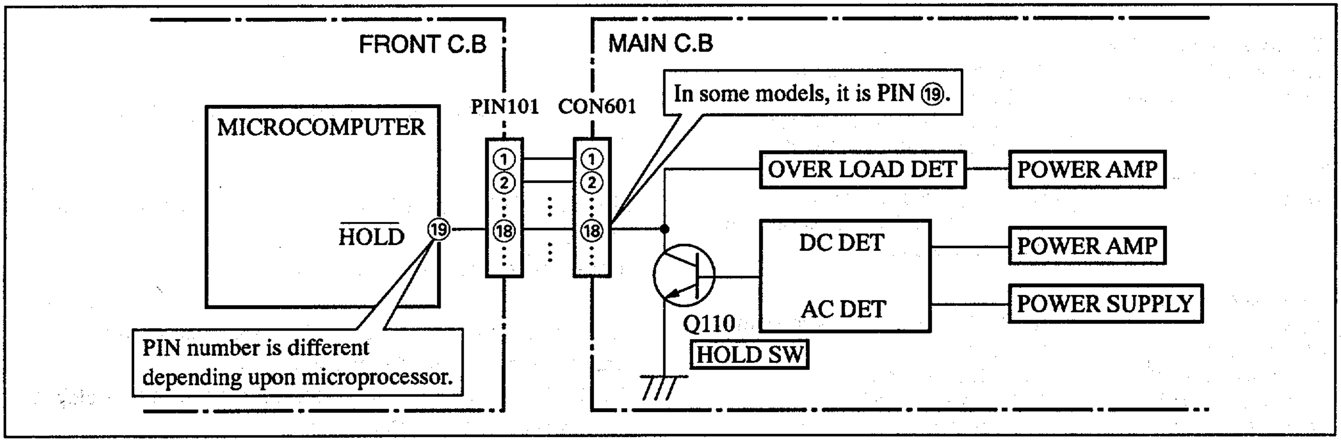
Be sure to check the following items before exchanging the MICROCOMPUTER. Exchange the MICROCOMPUTER after confirming that the MICROCOMPUTER is surely defective.

2-1. Regarding the HOLD terminal of the MICROCOMPUTER

When the HOLD terminal (INPUT) of the MICROCOMPUTER is "H", the MICROCOMPUTER is judged to be operating correctly. When this terminal is "L", the main power cannot be turned on. Therefore, be sure to check the terminal voltage of the HOLD terminal before exchange.
When the MICROCOMPUTER is not defective, the HOLD terminal can also go "L" when the POWER AMPLIFIER has any abnormalities that triggers the abnormality detection circuit on the MAIN C. B. that sets the HOLD terminal to "L".

- Good or no good judgement of the MICROCOMPUTER

① Turn on the AC main power.
② Confirm that the main power is turned on and the HOLD terminal of the MICROCOMPUTER keeps the "H" level or not.
③ When the HOLD terminal is "L" level, the abnormality detection circuit is judged to be working correctly and the MICROCOMPUTER is judged to be good.



In some models, it is PIN ⑲.

PIN number is different depending upon microprocessor.

Fig-2-1

In such a case, check also if the POWER AMPLIFIER circuit or power supply circuit has any abnormalities or not.

2-2. Regarding reset

There are cases that the machine does not work correctly because the MICROCOMPUTER is not reset even though the AC power cord is re-inserted, or the software reset (pressing the STOP key + POWER key) is performed.
When the above described phenomenon occurs, it can leads to wrong judgement as if the MICROCOMPUTER is defective and to exchange the MICROCOMPUTER. In such a case, perform the forced-reset by the following procedure and check good or no good of the MICROCOMPUTER.

① Remove the AC power cord.

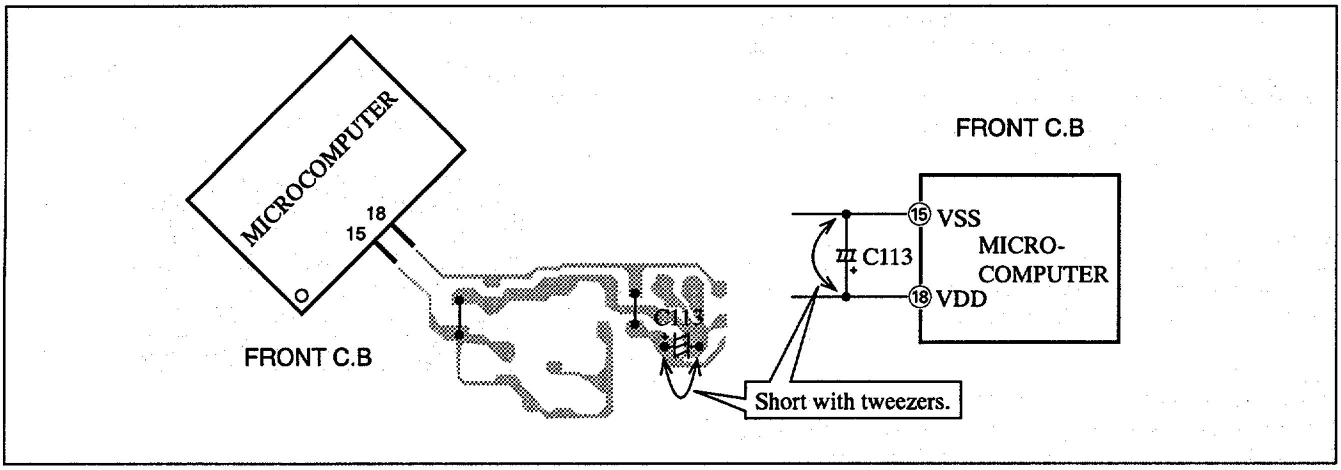


Fig-2-2

② Short both ends of the electrolytic capacitor C113 that is connected to VDD of the MICROCOMPUTER with tweezers.

③ Connect the AC power cord again. If the MICROCOMPUTER returns to the normal operation, the MICROCOMPUTER is good.

Note: The reference number or MICROCOMPUTER pin number of transistor (Q110) and electrolytic capacitor (C113) can change depending on the models. Be sure to check the reference numbers on schematic diagram before starting the discharging work.

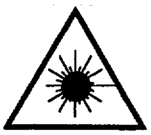
2-3. Confirmation of soldering state of MICROCOMPUTER

Check the soldering state of the MICROCOMPUTER in addition to the above described procedures. Be sure to exchange the MICROCOMPUTER after surely confirming that the trouble is not caused by poor soldering but the MICROCOMPUTER itself.

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs laser. Therefore, be sure to follow carefully the instructions below when servicing.

WARNING!!
WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION. BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.



- Caution: Invisible laser radiation when open and interlocks defeated avoid exposure to beam.
- Advarsel: Usynlig laserståling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

VAROITUS!
Laiteen Käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saattaa altistaa käyt-täjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

VARNING!
Om apparaten används på annat sätt än vad som specificeras i denna bruksanvising, kan användaren utsättas för osynling laserstrålning, som överskrider gränsen för laserklass 1.

CAUTION
Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

ATTENTION
L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

ADVARSEL!
Usynlig laserståling ved åbning, når sikkerhedsafbrydereer ude af funktion. Undgå udsættelse for stråling.

This Compact Disc player is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT label is located on the rear exterior.

CLASS 1	LASER PRODUCT
KLASSE 1	LASER PRODUKT
LUOKAN 1	LASER LAITE
KLASS 1	LASER APPARAT

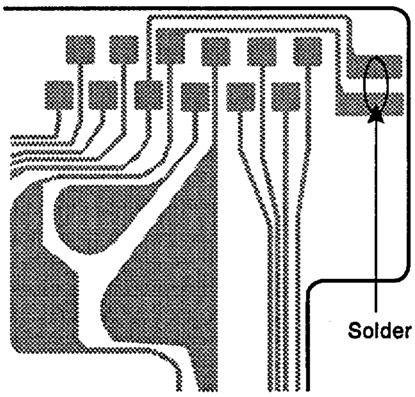
Precaution to replace Optical block

(KSS – 213F)

Body or clothes electrostatic potential could ruin laser diode in the optical block. Be sure ground body and workbench, and use care the clothes do not touch the diode.

1) After the connection, remove solder shown in right figure.

PICK-UP Assy P.C.B



ELECTRICAL MAIN PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
IC			
	88-NF7-750-010		C-IC,LC866560W-5H26
	87-070-083-010		IC,GP1U281X
	87-A20-783-040		C-IC,BA7762AFS<HR,HE,EZ>
	87-A20-083-010		IC,BA3835S
	87-A20-804-040		C-IC,NJM2152M
	87-017-915-080		IC,BU4094BCF
	87-A20-613-040		C-IC,BU9262AFS
	87-A20-954-040		C-IC,M62445FP-601
	87-017-888-080		IC,NJM4558MD
	86-NFZ-655-010		IC,LC72131D(Z)
	87-A20-438-010		IC,LA1837<HR,HE>
	87-020-454-010		IC,DN6851
	87-070-121-010		IC,HA12185NT<K>
	87-A20-913-010		IC,LA1837NL<EZ,K>
	87-A20-440-010		C-IC,BU1920FS<EZ>
	87-A20-355-010		IC,CXA1533P<EZ>
TRANSISTOR			
	87-A30-087-080		C-FET,2SK2158
	89-213-702-010		TR,2SB1370 (1.8W)
	87-026-263-080		C-TR,RN1410
	87-A30-071-080		C-TR,RT1N 144C
	87-026-610-080		TR,KTC3198GR
	87-A30-076-080		C-TR,2SC3052F
	87-A30-196-080		TR,2SC4115SRS
	87-A30-075-080		C-TR,2SA1235F
	87-026-609-080		TR,KTA1266GR
	87-A30-107-070		C-TR,CMBT5401
	87-A30-190-080		TR,CC5551
	87-A30-097-010		TR,FN 1016<HR,HE,EZ>
	87-A30-098-010		TR,FP 1016<HR,HE,EZ>
	87-A30-106-070		C-TR,CMBT5551
	87-A30-186-010		FET,2SK3053
	87-A30-072-080		C-TR,RT1P 144C
	87-A30-074-080		C-TR,RT1P 141C
	87-A30-073-080		C-TR,RT1N 141C
	87-A30-105-080		C-TR,RT1P 441C
	87-026-580-080		C-TR,DTA123JK
	87-A30-086-070		C-TR,CSD1306E
	89-112-965-080		TR,2SA1296 (0.75W)
	87-A30-085-070		C-TR,CSA1362GR
	89-327-143-080		TR,2SC2714 (0.1W)
	87-026-463-080		TR,2SA933SRS
	87-A30-221-040		C-TR,DTA 114WK
	89-505-434-540		C-FET,2SK543-TB(4/5)
	87-A30-137-010		TR,2SD2494<K>
	87-A30-138-010		TR,2SB1625<K>
DIODE			
	87-A40-470-080		DIODE,1SS254
	87-A40-115-060		DIODE,RS603M
	87-A40-269-080		C-DIODE,MC2836
	87-A40-509-080		ZENER,MTZJ6.8C
	87-A40-270-080		C-DIODE,MC2838
	87-070-274-080		DIODE,1N4003 SEM
	87-A40-341-080		ZENER,MTZJ 36 A
	87-A40-308-080		ZENER,DZ10M
	87-A40-004-080		ZENER,MTZJ16A
	87-A40-488-080		DIODE,1SS244
	87-A40-299-080		ZENER,DZ5.1M
	87-A40-345-080		ZENER,MTZJ10C
	87-A40-184-090		DIODE,RF34
	87-A40-302-080		ZENER,DZ5.6M
	87-A40-002-080		ZENER,MTZJ5.1C
	87-A40-438-080		ZENER,MTZJ4.7A
	87-A40-234-080		ZENER,MTZJ5.6A

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
	87-017-654-060		DIODE,GBU6JL6131
	87-A40-116-060		RS403L-B-D-51<K>
	87-A40-504-040		C-DIODE,KDS184
MAIN C.B			
C103	87-016-658-090		CAP,E 4700-35 SMG<HR,HE,EZ>
C104	87-016-658-090		CAP,E 4700-35 SMG<HR,HE,EZ>
C105	87-012-368-080		C-CAP,S 0.1-50 F
C106	87-012-368-080		C-CAP,S 0.1-50 F
C107	87-012-368-080		C-CAP,S 0.1-50 F
C108	87-012-368-080		C-CAP,S 0.1-50 F
C109	87-010-196-080		CHIP CAPACITOR,0.1-25
C110	87-010-196-080		CHIP CAPACITOR,0.1-25
C111	87-010-196-080		CHIP CAPACITOR,0.1-25
C112	87-010-196-080		CHIP CAPACITOR,0.1-25
C113	87-010-247-080		CAP, ELECT 100-50V
C116	87-010-247-080		CAP, ELECT 100-50V
C117	87-010-430-080		CAP, ELECT 100-63
C118	87-010-263-080		CAP, ELECT 100-10V
C119	87-010-260-080		CAP, ELECT 47-25V
C120	87-010-403-080		CAP, ELECT 3.3-50V
C121	87-012-140-080		CAP 470P
C123	87-010-247-080		CAP, ELECT 100-50V
C124	87-010-112-080		CAP, ELECT 100-16V
C125	87-010-235-080		CAP,E 470-16 SME
C130	87-010-194-080		CAP,CHIP 0.047<EZ,K>
C131	87-010-194-080		CAP,CHIP 0.047<EZ,K>
C151	87-016-520-090		CAP,E 3300-65<HR,HE,EZ>
C151	87-010-917-090		CAP,E 3300-50 M SMG<K>
C152	87-016-520-090		CAP,E 3300-65<HR,HE,EZ>
C152	87-010-917-090		CAP,E 3300-50 M SMG<K>
C153	87-010-928-090		CAP,E 4700-25 SMG<K>
C154	87-010-928-090		CAP,E 4700-25 SMG<K>
C204	87-016-299-080		CAP, E 10-100<HR,HE,EZ>
C204	87-010-405-080		CAP, E 10-50<K>
C205	87-010-805-080		C-CAP,1UF-16FZ
C206	87-010-805-080		C-CAP,1UF-16FZ
C209	87-010-546-080		CAP, ELECT 0.33-50V
C210	87-010-546-080		CAP, ELECT 0.33-50V
C211	87-010-180-080		C-CER 1500P<HR,HE>
C211	87-010-181-080		CAP,CHIP S 1800P<EZ,K>
C212	87-010-180-080		C-CER 1500P<HR,HE>
C212	87-010-181-080		CAP,CHIP S 1800P<EZ,K>
C213	87-010-186-080		CAP,CHIP 4700P
C214	87-010-186-080		CAP,CHIP 4700P
C215	87-010-403-080		CAP, ELECT 3.3-50V
C216	87-010-403-080		CAP, ELECT 3.3-50V
C217	87-010-260-080		CAP, ELECT 47-25V
C218	87-010-260-080		CAP, ELECT 47-25V
C219	87-010-805-080		C-CAP,1UF-16FZ
C220	87-010-805-080		C-CAP,1UF-16FZ
C221	87-010-213-080		C-CAP,S 0.015-50 B<EZ,K>
C222	87-010-213-080		C-CAP,S 0.015-50 B<EZ,K>
C223	87-010-197-080		CAP,CHIP 0.01 DM<EZ,K>
C224	87-010-197-080		CAP,CHIP 0.01 DM<EZ,K>
C225	87-010-176-080		C-CAP,S 680P-50 SL
C226	87-010-176-080		C-CAP,S 680P-50 SL
C229	87-A10-812-080		C-CAP,S 220P-200 J CH
C230	87-A10-812-080		C-CAP,S 220P-200 J CH
C233	87-010-544-080		CAP, ELECT 0.1-50V
C234	87-010-544-080		CAP, ELECT 0.1-50V
C235	87-010-196-080		CHIP CAPACITOR,0.1-25
C237	87-012-368-080		C-CAP,S 0.1-50 F
C238	87-012-368-080		C-CAP,S 0.1-50 F
C239	87-012-368-080		C-CAP,S 0.1-50 F
C240	87-012-368-080		C-CAP,S 0.1-50 F
C241	87-010-322-080		C-CAP,S 100P-50 CH<EZ,K>
C242	87-010-322-080		C-CAP,S 100P-50 CH<EZ,K>
C247	87-010-178-080		CAP, CHIP 1000P

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C248	87-010-178-080		CAP, CHIP 1000P
C299	87-010-197-080		CAP,CHIP 0.01 DM<EZ,K>
C280	87-010-188-080		C-CAP,S 6800P-50 B
C301	87-010-318-080		C-CAP,S 47P-50 CH
C302	87-010-318-080		C-CAP,S 47P-50 CH
C303	87-012-157-080		C-CAP,S 330P-50 CH
C304	87-012-157-080		C-CAP,S 330P-50 CH
C305	87-012-145-080		CAP, CHIP S 270P CH
C306	87-012-145-080		CAP, CHIP S 270P CH
C307	87-010-196-080		CHIP CAPACITOR,0.1-25
C309	87-010-196-080		CHIP CAPACITOR,0.1-25<HR,HE,K>
C310	87-010-196-080		CHIP CAPACITOR,0.1-25<HR,HE,K>
C311	87-010-198-080		CAP, CHIP 0.022
C312	87-010-198-080		CAP, CHIP 0.022
C313	87-010-178-080		CHIP CAP 1000P<HR,HE>
C313	87-010-179-080		CHIP CAP S 1200P<EZ>
C313	87-010-180-080		C-CER 1500P<K>
C314	87-010-178-080		CHIP CAP 1000P<HR,HE>
C314	87-010-179-080		CHIP CAP S 1200P<EZ>
C314	87-010-180-080		C-CER 1500P<K>
C315	87-010-178-080		CHIP CAP 1000P<HR,HE,EZ>
C315	87-010-182-080		C-CAP,S 2200P-50 B<K>
C316	87-010-178-080		CHIP CAP 1000P<HR,HE,EZ>
C316	87-010-182-080		C-CAP,S 2200P-50 B<K>
C317	87-012-142-080		CAP,S 0.33-16<EZ>
C318	87-012-142-080		CAP,S 0.33-16<EZ>
C319	87-012-141-080		CHIP CAP,0.22-16 F<EZ>
C320	87-012-141-080		CHIP CAP,0.22-16 F<EZ>
C321	87-016-492-080		C-CAP,S 0.33-16 FZ<HR,HE,K>
C321	87-012-141-080		CHIP CAP,0.22-16 F<EZ>
C322	87-016-492-080		C-CAP,S 0.33-16 FZ<HR,HE,K>
C322	87-012-141-080		CHIP CAP,0.22-16 F<EZ>
C324	87-010-260-080		CAP, ELECT 47-25V
C325	87-010-370-080		CAP,E 330-6.3 SME
C327	87-010-404-080		CAP, ELECT 4.7-50V
C328	87-010-404-080		CAP, ELECT 4.7-50V
C332	87-010-196-080		CHIP CAPACITOR,0.1-25
C335	87-010-401-080		CAP, ELECT 1-50V
C336	87-010-401-080		CAP, ELECT 1-50V
C337	87-010-196-080		CHIP CAPACITOR,0.1-25
C339	87-010-196-080		CHIP CAPACITOR,0.1-25
C340	87-010-196-080		CHIP CAPACITOR,0.1-25
C351	87-012-140-080		CAP 470P
C352	87-012-140-080		CAP 470P
C354	87-010-175-080		CAP 560P
C355	87-012-349-080		C-CAP,S 1000P-50 CH
C356	87-010-260-080		CAP, ELECT 47-25V
C357	87-010-197-080		CAP, CHIP 0.01 DM
C358	87-010-183-080		C-CAP,S 2700P-50 B
C359	87-010-183-080		C-CAP,S 2700P-50 B
C360	87-010-183-080		C-CAP,S 2700P-50 B
C370	87-010-196-080		CHIP CAPACITOR,0.1-25
C371	87-010-177-080		C-CAP,S820P-50 SL<EZ>
C372	87-010-177-080		C-CAP,S820P-50 SL<EZ>
C373	87-016-083-080		C-CAP,S 0.15-16 RK<HR,HE,K>
C373	87-010-179-080		CAP,CHIP S B1200P<EZ>
C374	87-016-083-080		C-CAP,S 0.15-16 RK<HR,HE,K>
C374	87-010-179-080		CAP,CHIP S B1200P<EZ>
C375	87-010-545-080		CAP,ELECT 0.22-50V<EZ>
C376	87-010-545-080		CAP,ELECT 0.22-50V<EZ>
C378	87-010-196-080		CHIP CAPACITOR,0.1-25
C379	87-010-382-080		CAP, ELECT 22-25V<HR,HE,K>
C380	87-010-382-080		CAP, ELECT 22-25V<HR,HE,K>
C381	87-010-197-080		CAP, CHIP 0.01 DM
C382	87-010-312-080		C-CAP,S 15P-50 CH<HR,HE,K>
C382	87-010-318-080		C-CAP,S 47P-50 CH<EZ>
C383	87-010-197-080		CAP, CHIP 0.01 DM
C384	87-010-402-080		CAP, ELECT 2.2-50V
C385	87-010-184-080		CHIP CAPACITOR 3300P<EZ>
C386	87-010-196-080		CHIP CAPACITOR,0.1-25
C387	87-012-145-080		CAP, CHIP S 270P CH<HR,HE,K>
C391	87-010-319-080		C-CAP,S 56P-50 CH<HR,HE>
C391	87-012-145-080		CAP, CHIP S 270P CH<EZ>
C392	87-010-319-080		C-CAP,S 56P-50 CH<HR,HE>
C392	87-012-145-080		CAP, CHIP S 270P CH<EZ>
C393	87-010-319-080		C-CAP,S 56P-50 CH<HR,HE>
C393	87-012-145-080		CAP, CHIP S 270P CH<EZ>
C394	87-010-319-080		C-CAP,S 56P-50 CH<HR,HE,K>
C394	87-012-145-080		CAP, CHIP S 270P CH<EZ>
C401	87-010-401-080		CAP, ELECT 1-50V
C402	87-010-401-080		CAP, ELECT 1-50V
C403	87-010-182-080		C-CAP,S 2200P-50 B
C404	87-010-182-080		C-CAP,S 2200P-50 B
C405	87-010-193-080		CHIP CAPACITOR,0.033
C406	87-010-193-080		CHIP CAPACITOR,0.033
C407	87-010-405-080		CAP, ELECT 10-50V
C408	87-010-405-080		CAP, ELECT 10-50V
C409	87-010-380-080		CAP, ELECT 47-16V
C410	87-010-380-080		CAP, ELECT 47-16V
C411	87-010-405-080		CAP, ELECT 10-50V
C412	87-010-112-080		CAP, ELECT 100-16V
C415	87-010-187-080		CAP CHIP S5600P
C416	87-010-187-080		CAP CHIP S5600P
C457	87-010-404-080		CAP, ELECT 4.7-50V
C458	87-010-404-080		CAP, ELECT 4.7-50V
C516	87-010-196-080		CHIP CAPACITOR,0.1-25
C601	87-010-180-080		C-CER 1500P
C602	87-010-180-080		C-CER 1500P
C613	87-016-081-080		C-CAP,S 0.1-16 RK
C614	87-016-081-080		C-CAP,S 0.1-16 RK
C619	87-010-185-080		C-CAP,S 3900P-50 B
C620	87-010-185-080		C-CAP,S 3900P-50 B
C621	87-010-401-080		CAP, ELECT 1-50V
C622	87-010-401-080		CAP, ELECT 1-50V
C625	87-010-405-080		CAP, ELECT 10-50V
C626	87-010-405-080		CAP, ELECT 10-50V
C629	87-010-405-080		CAP, ELECT 10-50V
C630	87-010-213-080		CAP, CHIP 0.015-25 KB GRM
C631	87-010-992-080		CHIP-CAP,S 0.047-25B
C632	87-010-263-080		CAP, ELECT 100-10V
C633	87-010-263-080		CAP, ELECT 100-10V
C634	87-010-196-080		CHIP CAPACITOR,0.1-25
C635	87-010-196-080		CHIP CAPACITOR,0.1-25
C636	87-010-194-080		CAP, CHIP 0.047
C637	87-010-183-080		C-CAP,S 2700P-50 B
C641	87-010-196-080		CHIP CAPACITOR,0.1-25
C653	87-010-318-080		C-CAP,S 47P-50 B<EZ,K>
C654	87-010-318-080		C-CAP,S 47P-50 B<EZ,K>
C667	87-010-196-080		CHIP CAPACITOR,0.1-25
C669	87-010-322-080		C-CAP,S 100P-50 CH<EZ,K>
C670	87-010-322-080		C-CAP,S 100P-50 CH<EZ,K>
C671	87-010-322-080		C-CAP,S 100P-50 CH<EZ,K>
C672	87-010-322-080		C-CAP,S 100P-50 CH<EZ,K>
C701	87-010-381-080		CAP, ELECT 330-16V
C702	87-010-404-080		CAP, ELECT 4.7-50V
C703	87-010-197-080		CAP, CHIP 0.01 DM
C704	87-010-197-080		CAP, CHIP 0.01 DM
C709	87-010-322-080		C-CAP,S 100P-50 CH
C711	87-010-263-080		CAP, ELECT 100-10V
C712	87-010-196-080		CHIP CAPACITOR,0.1-25
C713	87-010-197-080		CAP, CHIP 0.01 DM
C714	87-010-197-080		CAP, CHIP 0.01 DM
C715	87-010-322-080		C-CAP,S 100P-50 CH<EZ,K>
C721	87-010-312-080		C-CAP,S 15P-50 CH
C722	87-010-312-080		C-CAP,S 15P-50 CH
C723	87-010-178-080		CHIP CAP 1000P
C725	87-010-178-080		CHIP CAP 1000P
C727	87-010-196-080		CHIP CAPACITOR,0.1-25
C728	87-010-248-080		CAP, ELECT 220-10V
C755	87-010-197-080		CAP, CHIP 0.01 DM

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C756	87-010-197-080		CAP, CHIP 0.01 DM
C757	87-010-318-080		C-CAP,S 47P-50 CH
C758	87-010-149-080		C-CAP,S 5P-50 CH
C759	87-012-154-080		C-CAP,S 150P-50 CH<HR,HE>
C760	87-012-154-080		C-CAP,S 150P-50 CH<HR,HE>
C761	87-010-196-080		CHIP CAPACITOR,0.1-25
C762	87-010-197-080		CAP, CHIP 0.01 DM
C763	87-010-194-080		CAP, CHIP 0.047
C764	87-010-319-080		C-CAP,S 56P-50 CH<HR,HE>
C765	87-010-197-080		CAP, CHIP 0.01 DM
C766	87-010-197-080		CAP, CHIP 0.01 DM
C767	87-010-405-080		CAP, ELECT 10-50V
C768	87-010-197-080		CAP, CHIP 0.01 DM
C769	87-010-408-080		CAP, ELECT 47-50V
C770	87-015-821-080		C-CAP 0.047
C771	87-010-407-080		CAP, ELECT 33-50V
C772	87-010-194-080		CAP, CHIP 0.047
C773	87-010-196-080		CHIP CAPACITOR,0.1-25<HR,HE>
C773	87-010-179-080		CAP,CHIP S B1200P<EZ,K>
C774	87-010-263-080		CAP, ELECT 100-10V
C775	87-010-404-080		CAP, ELECT 4.7-50V
C776	87-010-197-080		CAP, CHIP 0.01 DM<EZ,K>
C777	87-010-400-080		CAP, ELECT 0.47-50V
C778	87-010-401-080		CAP, ELECT 1-50V
C779	87-010-401-080		CAP, ELECT 1-50V
C780	87-010-196-080		CHIP CAPACITOR,0.1-25
C781	87-010-405-080		CAP, ELECT 10-50V
C782	87-010-405-080		CAP, ELECT 10-50V
C783	87-015-819-080		CAPACITOR,0.01
C784	87-010-197-080		CAP, CHIP 0.01 DM
C785	87-010-403-080		CAP, ELECT 3.3-50V
C786	87-010-403-080		CAP, ELECT 3.3-50V
C787	87-010-186-080		CAP, CHIP 4700P<EZ>
C788	87-010-186-080		CAP, CHIP 4700P<EZ>
C789	87-010-179-080		CAP,CHIP S B1200P<HR,HE,EZ>
C789	87-010-188-080		CAP,CHIP 6800P<K>
C790	87-010-179-080		CAP,CHIP S B1200P<HR,HE,EZ>
C790	87-010-188-080		CAP,CHIP 6800P<K>
C791	87-010-405-080		CAP, ELECT 10-50V
C793	87-010-177-080		C-CAP,S 820P-50 SL<HR,HE>
C793	87-010-180-080		C-CER 1500P<EZ>
C793	87-010-181-080		CAP,CHIP S 1800P<K>
C794	87-010-406-080		CAP, ELECT 22-50
C795	87-010-596-080		CAP, S 0.047-16
C796	87-010-403-080		CAP, ELECT 3.3-50V
C797	87-010-197-080		CAP,CHIP S 1200P<HR,HE>
C797	87-010-180-080		C-CER 1500P<EZ,K>
C798	87-010-197-080		CAP,CHIP S 1200P<HR,HE>
C798	87-010-180-080		C-CER 1500P<EZ,K>
C799	87-010-194-080		CAP, CHIP 0.047
C812	87-010-197-080		CAP, CHIP 0.01 DM
C814	87-010-197-080		CAP, CHIP 0.01 DM
C820	87-010-408-080		CAP, ELECT 47-50V
C821	87-010-197-080		CAP, CHIP 0.01 DM
C822	87-010-197-080		CAP, CHIP 0.01 DM
C823	87-010-197-080		CAP, CHIP 0.01 DM
C828	87-010-196-080		CHIP CAPACITOR,0.1-25
C829	87-010-196-080		CHIP CAPACITOR,0.1-25
C859	87-010-197-080		CAP, CHIP 0.01 DM<EZ>
C861	87-012-156-080		C-CAP,S 220P-50 CH<EZ>
C862	87-012-156-080		C-CAP,S 220P-50 CH<EZ>
C863	87-012-140-080		CAP, 470P<EZ>
C864	87-010-405-080		CAP,ELECT 10-50V<EZ>
C865	87-010-196-080		CHIP CAPACITOR,0.1-25<EZ>
C866	87-010-405-080		CAP,ELECT 10-50V<EZ>
C867	87-010-197-080		CAP, CHIP 0.01 DM<EZ>
C868	87-010-316-080		C-CAP,S 33P-50 CH<EZ>
C869	87-010-134-080		C-CAP,S 22P-50V<EZ>
C940	87-010-197-080		CAP, CHIP 0.01 DM
C941	87-010-314-080		C-CAP,S 22P-50V<HR,HE>

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C942	87-010-151-080		C-CAP,S 7P-50 CH<EZ,K>
C943	87-010-197-080		CAP, CHIP 0.01 DM<HR,HE>
C944	87-014-051-080		CAPACITOR (PP),560P<HR,HE>
C945	87-010-197-080		CAP, CHIP 0.01 DM<HR,HE>
C947	87-010-197-080		CAP, CHIP 0.01 DM
C949	87-014-049-080		CAP,PP 470P-100J<EZ,K>
C950	87-014-073-080		CAP, PP 4700P-100J<HR,HE>
C952	87-010-197-080		CAP, CHIP 0.01 DM
C953	87-010-197-080		CAP, CHIP 0.01 DM<HR,HE>
C954	87-010-400-080		CAP, ELECT 0.47-50V<HR,HE>
C956	87-010-263-080		CAP, ELECT 100-10V<HR,HE>
C957	87-010-311-080		CAP, 12P<EZ,K>
C958	87-010-197-080		CAP, CHIP 0.01 DM<EZ,K>
C959	87-010-196-080		CHIP CAPACITOR,0.1-25
C960	87-010-196-080		CHIP CAPACITOR,0.1-25
C962	87-010-401-080		CAP, ELECT 1-50V
CF801	87-008-261-010		FILTER, SFE10.7MA5-A<HR,HE>
CF801	87-008-423-010		FLTR,CF SFE10.7 MS3G-A<EZ,K>
CF802	87-008-261-010		FILTER, SFE10.7MA5-A<HR,HE>
CF802	82-785-747-010		CF,MS2 GHY R<EZ,K>
CON351	86-ZM3-605-010		CONN ASSY,8P-RPB<K>
FB301	87-008-372-080		FILTER,EMI BL OIRNI<EZ>
FC602	88-906-241-110		FF-CABLE,6P 1.25
FFE801	A8-8ZA-190-030		8ZA-1 FEUNM<HR>
FFE801	A8-8ZA-193-070		8ZA-1 YFEUNC<HE>
FFE801	A8-6ZA-191-130		6ZA-1 FEENM<EZ>
FFE801	A8-6ZA-19C-170		6ZA-1 YFEENC<K>
J201	87-A60-488-010		JACK,DIA6.3 BLK ST W/SW KM16AT
J202	87-A60-641-010		JACK,PIN 4P R/W/B JALCO
J203	87-033-240-010		TERMINAL,SP 4P32SV1-05
J601	87-A60-426-010		JACK,PIN 6P YKC21-3835
J801	87-A60-202-010		TERMINAL,ANT 4P MSP-154V-02<HR,HE>
J801	87-A60-427-010		TERMINAL,ANT 2P YKD31-0429<EZ,K>
L201	87-003-383-010		COIL,1UH-S
L202	87-003-383-010		COIL,1UH-S
L301	87-A50-049-010		COIL,TRAP 85K(COI)
L302	87-A50-049-010		COIL,TRAP 85K(COI)
L351	87-007-342-010		COIL,OSC 85K BIAS
L771	87-A50-266-010		COIL,FM DET-2N(TOK)
L772	87-A90-052-010		FLTR,CFMT-450A (TOK)<HR,HE>
L772	87-A90-733-010		FLTR,PCFAZH-450(TOK)<EZ>
L781	87-005-847-080		COIL,2.2UH(CECS)
L791	87-A50-027-010		COIL,1 POLE MPX(TOK)<EZ>
L792	87-A50-027-010		COIL,1 POLE MPX(TOK)<EZ>
L832	86-NFZ-694-080		COIL,2.2UH K CECS
L941	87-A50-022-010		COIL,ANT SW (COI)7.96MHZ<HR,HE>
L941	87-A50-020-010		COIL,ANT LW (COI)252KHZ<EZ,K>
L942	87-A50-173-010		COIL,OSC SW-N (COI)<HR,HE>
L942	87-A50-019-010		COIL,OSC LW(COI)856KHZ<EZ,K>
L943	87-005-372-080		COIL,S 1MHM<HR,HE>
L944	87-A50-159-010		COIL,10MH K C2B<HR,HE>
L981	88-NF8-625-010		COIL,AM PACK 3N(TOK)<HR,HE>
L981	87-NF4-651-010		COIL,AM PACK 2N(TOM)<EZ,K>
R237	87-A00-262-080		RES,M/F 0.15-2W J<HR,HE>
R237	87-A00-257-080		RES,M/F 0.15-1W J<EZ,K>
R238	87-A00-262-080		RES,M/F 0.15-2W J<HR,HE>
R238	87-A00-257-080		RES,M/F 0.15-1W J<EZ,K>
R239	87-A00-262-080		RES,M/F 0.15-2W J<HR,HE>
R239	87-A00-257-080		RES,M/F 0.15-1W J<EZ,K>
R240	87-A00-262-080		RES,M/F 0.15-2W J<HR,HE>
R240	87-A00-257-080		RES,M/F 0.15-1W J<EZ,K>
RY101	87-A90-464-010		RELAY, DG12D2-O(M)
RY201	87-A90-713-010		RELAY, 12V DQ12D1
SFR301	87-A90-557-080		SFR,33K H HOKU<EZ>
SFR302	87-A90-557-080		SFR,33K H HOKU<EZ>
SFR303	87-A90-557-080		SFR,33K H HOKU<EZ>
SFR304	87-A90-557-080		SFR,33K H HOKU<EZ>
SFR305	87-A90-433-080		SFR,50K H NVZ6TLTA<EZ>
SFR306	87-A90-433-080		SFR,50K H NVZ6TLTA<EZ>
SFR351	87-A90-433-080		SFR,50K H NVZ6TLTA

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
SFR352	87-A90-433-080		SFR,50K H NVZ6TLTA
TC941	87-011-220-080		TRIMMER CAP 20P VTC<HR,HE>
TC943	87-011-221-080		TRIMMER CAP 30P
TH201	87-A90-221-010		C-THMS,100K
TH202	87-A90-221-010		C-THMS,100K
W104	85-NF5-628-010		F-CABLE 7P-2.5
X721	87-A70-061-010		VIB,XTAL 4.500MHZ CSA-309
X771	87-A30-354-010		VIB,CER 450.0KHZ BFU C<HR,HE>
X851	87-A70-091-010		VIB,XTAL 4.332MHZ CSA-309<EZ>

FRONT C.B

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C101	87-010-550-040		CAP,E 100-6.3 GAS
C102	87-010-196-080		CHIP CAPACITOR,0.1-25
C103	87-010-196-080		CHIP CAPACITOR,0.1-25
C104	87-010-494-040		CAP,E 1-50 GAS
C105	87-010-178-080		CHIP CAP 1000P
C106	87-A10-189-040		CAP,E 220-10
C107	87-010-197-080		CAP, CHIP 0.01 DM
C108	87-010-196-080		CHIP CAPACITOR,0.1-25
C109	87-018-208-080		CAP 0.047-50F
C110	87-012-157-080		C-CAP,S 330P-50 CH
C111	87-010-320-080		CHIP CAP 68P
C112	87-010-312-080		C-CAP,S 15P-50 CH
C113	87-010-316-080		C-CAP,S 33P-50 CH
C114	87-010-182-080		C-CAP,S 2200P-50 B
C115	87-010-182-080		C-CAP,S 2200P-50 B
C116	87-010-498-040		CAP,E 10-16 GAS
C117	87-012-157-080		C-CAP,S 330P-50 CH
C118	87-010-196-080		CHIP CAPACITOR,0.1-25
C119	87-010-196-080		CHIP CAPACITOR,0.1-25
C120	87-010-196-080		CHIP CAPACITOR,0.1-25
C121	87-010-194-080		CAP, CHIP 0.047
C122	87-010-194-080		CAP, CHIP 0.047
C124	87-010-263-040		CAP,E 100-10
C125	87-010-196-080		CHIP CAPACITOR,0.1-25
C201	87-010-178-080		CHIP CAP 1000P
C202	87-010-194-080		CAP, CHIP 0.047
C203	87-A10-797-040		CAP,E 47-35 M 5L SRM
C204	87-010-497-040		CAP,E 4.7-35 GAS
C205	87-010-497-040		CAP,E 4.7-35 GAS
C206	87-012-157-080		C-CAP,S 330P-50 CH
C207	87-012-157-080		C-CAP,S 330P-50 CH
C208	87-012-157-080		C-CAP,S 330P-50 CH
C209	87-012-157-080		C-CAP,S 330P-50 CH
C210	87-012-157-080		C-CAP,S 330P-50 CH
C211	87-012-157-080		C-CAP,S 330P-50 CH
C212	87-012-157-080		C-CAP,S 330P-50 CH
C213	87-012-157-080		C-CAP,S 330P-50 CH
C214	87-012-157-080		C-CAP,S 330P-50 CH
C215	87-012-157-080		C-CAP,S 330P-50 CH
C216	87-012-157-080		C-CAP,S 330P-50 CH
C217	87-012-157-080		C-CAP,S 330P-50 CH
C218	87-012-157-080		C-CAP,S 330P-50 CH
C371	87-010-196-080		CHIP CAPACITOR,0.1-25
C372	87-010-196-080		CHIP CAPACITOR,0.1-25
C373	87-010-196-080		CHIP CAPACITOR,0.1-25
C375	87-010-196-080		CHIP CAPACITOR,0.1-25
C376	87-010-173-080		C-CAP,S 390P-50 SL
C377	87-010-196-080		CHIP CAPACITOR,0.1-25
C378	87-010-196-080		CHIP CAPACITOR,0.1-25
C402	87-010-196-080		CHIP CAPACITOR,0.1-25
C404	87-010-196-080		CHIP CAPACITOR,0.1-25
C406	87-010-196-080		CHIP CAPACITOR,0.1-25
C408	87-010-196-080		CHIP CAPACITOR,0.1-25
C501	87-010-319-080		C-CAP,S 56P-50 CH
C502	87-010-319-080		C-CAP,S 56P-50 CH
C503	87-012-393-080		C-CAP,S 0.22-16 R K
C504	87-010-197-080		CAP, CHIP 0.01 DM
C505	87-010-180-080		C-CER 1500P

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
C506	87-010-213-080		C-CAP,S 0.015-50 B
C507	87-010-213-080		C-CAP,S 0.015-50 B
C508	87-010-197-080		CAP, CHIP 0.01 DM
C509	87-010-181-080		CAP,CHIP S 1800P
C510	87-010-196-080		CHIP CAPACITOR,0.1-25
C511	87-018-209-080		CAP, CER 0.1-50V
C512	87-010-374-040		CAP,E 47-10
C513	87-010-401-040		CAP,E 1-50 SME
C514	87-010-401-040		CAP,E 1-50 SME
C515	87-010-183-080		C-CAP,S 2700P-50 B
C516	87-010-183-080		C-CAP,S 2700P-50 B
C518	87-010-196-080		CHIP CAPACITOR,0.1-25
C519	87-010-263-040		CAP,E 100-10
C523	87-012-141-080		CHIP-CAPACITOR,0.22-16F
C601	87-010-391-040		CAP,E 10-35 SME
C602	87-010-186-080		CAP,CHIP 4700P
C603	87-010-498-040		CAP,E 10-16 GAS
C604	87-010-382-040		CAP,E 22-25 SME
C605	87-010-196-080		CHIP CAPACITOR,0.1-25
C606	87-010-322-080		C-CAP,S 100P-50 CH
C607	87-010-321-080		CHIP CAPACITOR,82P(J)
C608	87-010-196-080		CHIP CAPACITOR,0.1-25
C609	87-010-545-040		CAP,E 0.22-50 SME
C610	87-010-322-080		C-CAP,S 100P-50 CH<EZ,K>
C611	87-010-177-080		C-CAP,S 820P-50 SL
C612	87-010-176-080		C-CAP,S 680P-50 SL<EZ,K>
C614	87-A10-189-040		CAP,E 220-10
C651	87-010-401-040		CAP,E 1-50 SME
C652	87-010-196-080		CHIP CAPACITOR,0.1-25
C653	87-010-196-080		CHIP CAPACITOR,0.1-25
FB601	87-008-372-080		FILTER, EMI BL OIRNI
FC501	85-NF5-615-010		CABLE,FFC 15P-1.25<HR,HE,EZ>
FC501	88-911-201-110		FF-CABLE,11P 1.25<K>
FC801	85-NF5-618-010		CABLE,FFC 13P-1.25
FL201	88-NF7-651-010		FL,BJ602GK
J601	87-A60-651-010		JACK,3.5MONO
J602	87-A60-651-010		JACK,3.5MONO
L501	87-005-448-080		COIL 220UH,K
LED401	87-070-197-080		LED,SLP7118C-51-S-T1
LED403	87-070-197-080		LED,SLP7118C-51-S-T1
LED405	87-070-197-080		LED,SLP7118C-51-S-T1
LED407	87-070-197-080		LED,SLP7118C-51-S-T1
LED409	87-070-197-080		LED,SLP7118C-51-S-T1
LED411	87-070-201-080		LED,SLP9118C-51-S-T1
LED412	87-070-201-080		LED,SLP9118C-51-S-T1
LED413	87-070-201-080		LED,SLP9118C-51-S-T1
LED414	87-070-201-080		LED,SLP9118C-51-S-T1
LED415	87-070-201-080		LED,SLP9118C-51-S-T1
LED417	87-070-281-080		LED,SLZ736A-25-S-T1
LED419	87-070-281-080		LED,SLZ736A-25-S-T1
LED421	87-070-281-080		LED,SLZ736A-25-S-T1
LED423	87-070-281-080		LED,SLZ736A-25-S-T1
LED425	87-070-281-080		LED,SLZ736A-25-S-T1
LED427	87-070-281-080		LED,SLZ736A-25-S-T1
LED428	87-A40-380-080		LED,SEL6510C-TP5 GRN
LED429	87-A40-380-080		LED,SEL6510C-TP5 GRN
LED430	87-A40-380-080		LED,SEL6510C-TP5 GRN
LED431	87-A40-380-080		LED,SEL6510C-TP5 GRN
LED432	87-A40-380-080		LED,SEL6510C-TP5 GRN
LED433	87-A40-380-080		LED,SEL6510C-TP5 GRN
LED434	87-A40-380-080		LED,SEL6510C-TP5 GRN
LED435	87-A40-380-080		LED,SEL6510C-TP5 GRN
LED436	87-A40-380-080		LED,SEL6510C-TP5 GRN
LED437	87-A40-380-080		LED,SEL6510C-TP5 GRN
LED444	87-070-278-010		LED,SLZ-738A-24-S
LED445	87-070-290-010		LED,SLZ 936-30-S
LED446	87-070-278-010		LED,SLZ-738A-24-S
LED447	87-070-278-010		LED,SLZ-738A-24-S
LED448	87-070-290-010		LED,SLZ 936-30-S
LED449	87-070-278-010		LED,SLZ-738A-24-S

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
S101	87-A90-791-010		SW,RTRY EC16B12204 ENCODER
S102	87-A90-535-010		SW,RTRY EC16B24304
S301	87-A90-095-080		SW,TACT EVQ11G04M
S302	87-A90-095-080		SW,TACT EVQ11G04M
S303	87-A90-095-080		SW,TACT EVQ11G04M
S304	87-A90-095-080		SW,TACT EVQ11G04M
S305	87-A90-095-080		SW,TACT EVQ11G04M
S306	87-A90-095-080		SW,TACT EVQ11G04M
S307	87-A90-095-080		SW,TACT EVQ11G04M
S308	87-A90-095-080		SW,TACT EVQ11G04M
S309	87-A90-095-080		SW,TACT EVQ11G04M
S310	87-A90-095-080		SW,TACT EVQ11G04M
S311	87-A90-095-080		SW,TACT EVQ11G04M
S312	87-A90-095-080		SW,TACT EVQ11G04M
S313	87-A90-095-080		SW,TACT EVQ11G04M<HR,HE,EZ>
S314	87-A90-095-080		SW,TACT EVQ11G04M<EZ>
S321	87-A90-095-080		SW,TACT EVQ11G04M
S322	87-A90-095-080		SW,TACT EVQ11G04M
S323	87-A90-095-080		SW,TACT EVQ11G04M
S324	87-A90-095-080		SW,TACT EVQ11G04M
S325	87-A90-095-080		SW,TACT EVQ11G04M
S326	87-A90-095-080		SW,TACT EVQ11G04M
S327	87-A90-095-080		SW,TACT EVQ11G04M
S331	87-A90-095-080		SW,TACT EVQ11G04M<EZ>
S332	87-A90-095-080		SW,TACT EVQ11G04M<EZ>
S333	87-A90-095-080		SW,TACT EVQ11G04M<EZ>
S335	87-A90-095-080		SW,TACT EVQ11G04M
S341	87-A90-095-080		SW,TACT EVQ11G04M
S342	87-A90-095-080		SW,TACT EVQ11G04M
S343	87-A90-095-080		SW,TACT EVQ11G04M
S344	87-A90-095-080		SW,TACT EVQ11G04M
S345	87-A90-095-080		SW,TACT EVQ11G04M
S346	87-A90-095-080		SW,TACT EVQ11G04M
S347	87-A90-095-080		SW,TACT EVQ11G04M
S348	87-A90-095-080		SW,TACT EVQ11G04M
S349	87-A90-095-080		SW,TACT EVQ11G04M
S350	87-A90-095-080		SW,TACT EVQ11G04M
X101	87-A70-070-080		VIB,CER 5.76MHZ CRHF

SW C.B

S351	87-A90-095-080		SW,TACT EVQ11G04M
S352	87-A90-095-080		SW,TACT EVQ11G04M
S353	87-A90-095-080		SW,TACT EVQ11G04M
S354	87-A90-095-080		SW,TACT EVQ11G04M
S355	87-A90-095-080		SW,TACT EVQ11G04M

AC1 C.B

⚠ FC1	87-033-147-010		FUSE CLAMP,MT-20<HE,HR>
⚠ F101	87-035-369-010		FUSE,5A 250V TE<HE,HR>
⚠ F101	87-035-364-010		FUSE,1.6A 250V <EZ,K>
⚠ FC2	87-033-147-010		FUSE CLAMP,MT-20<HE,HR>
⚠ FC101	87-A90-505-080		FUSE CLAMP,TP00351-51<EZ,K>
⚠ FC102	87-A90-505-080		FUSE CLAMP,TP00351-51<EZ,K>
⚠ PT101	88-NF7-662-010		PT,8NF-7 HR<HE,HR>
⚠ PT101	88-NF7-664-010		PT,8NF-7 K<K>
⚠ PT101	88-NF7-665-010		PT,8NF-7 EZ<EZ>
⚠ SW1	87-A90-165-010		SW,SL 1-2-3 SWS2301<HE,HR>
⚠ T1	87-A60-317-010		TERMINAL, 1P MSC<HE,HR>
⚠ T101	87-A60-317-010		TERMINAL, 1P MSC<EZ,K>
⚠ T102	87-A60-317-010		TERMINAL, 1P MSC<EZ,K>
⚠ T2	87-A60-317-010		TERMINAL, 1P MSC<HE,HR>

AC2 C.B

⚠ PR101	87-026-682-080		PROTECTOR,10A 60V491
⚠ PR102	87-026-682-080		PROTECTOR,10A 60V491
⚠ PR103	87-026-682-080		PROTECTOR,10A 60V491
⚠ PR104	87-026-682-080		PROTECTOR,10A 60V491

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION

DECK C.B

CON105	87-099-756-019		CONN, 15P 9604 S F<HR,HE,EZ>
CON105	87-099-753-019		CONN, 11P H 9604<K>
SFR1	87-024-581-019		SFR,3.3K DIA 6H
SOL1	82-ZM1-618-410		SOL ASSY, 27
SOL2	82-ZM1-618-410		SOL ASSY, 27
SW1	87-A90-248-019		SW,MICRO ESE11SH2CXQ
SW2	87-A90-248-019		SW,MICRO ESE11SH2CXQ
SW3	87-A90-248-019		SW,MICRO ESE11SH2CXQ
SW4	87-036-110-010		SW,MICRO SPPB62<HR,HE,EZ>
SW4	87-A90-248-019		SW,MICRO ESE11SH2CXQ<K>
SW5	87-036-110-010		SW,MICRO SPPB62<HR,HE,EZ>
SW5	87-A90-248-019		SW,MICRO ESE11SH2CXQ<K>
SW6	87-036-110-010		SW,MICRO SPPB62<HR,HE,EZ>
SW8	87-A90-248-019		SW,MICRO ESE11SH2CXQ<HR,HE,EZ>
SW9	87-A90-248-019		SW,MICRO ESE11SH2CXQ<HR,HE,EZ>
W001	82-ZM3-601-019		RBN,CORD,4P-75

HEAD-1 C.B

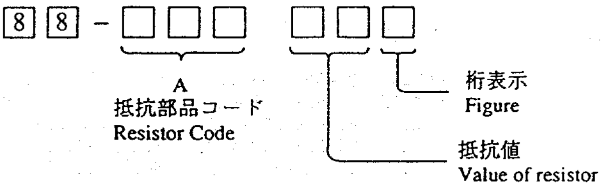
CON301	85-MA2-615-010		CON ASSY,3P-PB<K>

HEAD-2 C.B

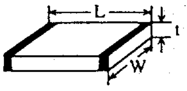
CON351	87-NF6-616-010		CONN ASSY,8P-RPB<HR,HE,EZ>

○ チップ抵抗部品コード／CHIP RESISTOR PART CODE

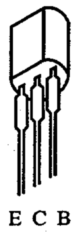
チップ抵抗部品コードの成り立ち
Chip Resistor Part Coding


8 8 - □□□ □□□
A
抵抗部品コード
Resistor Code
桁表示
Figure
抵抗値
Value of resistor

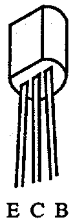
チップ抵抗
Chip resistor

容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法／Dimensions (mm)				抵抗コード ：A Resistor Code: A
				外形／Form	L	W	t	
1／16W	1608	±5%	CJ		1.6	0.8	0.45	108
1／10W	2125	±5%	CJ		2	1.25	0.45	118
1／8W	3216	±5%	CJ		3.2	1.6	0.55	128

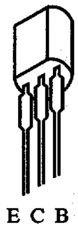
TRANSISTOR ILLUSTRATION



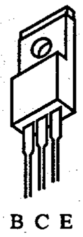
KTA1266GR
KTC3198GR



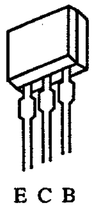
CC5551



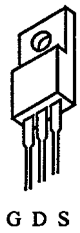
2SA1296



2SB1370
2SB1625
2SD2494
FN1016
FP1016



2SA933
2SC4115



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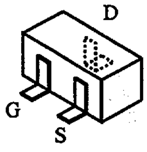
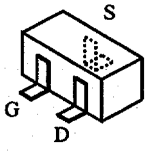


2SK2158



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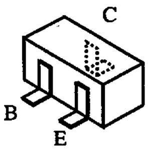


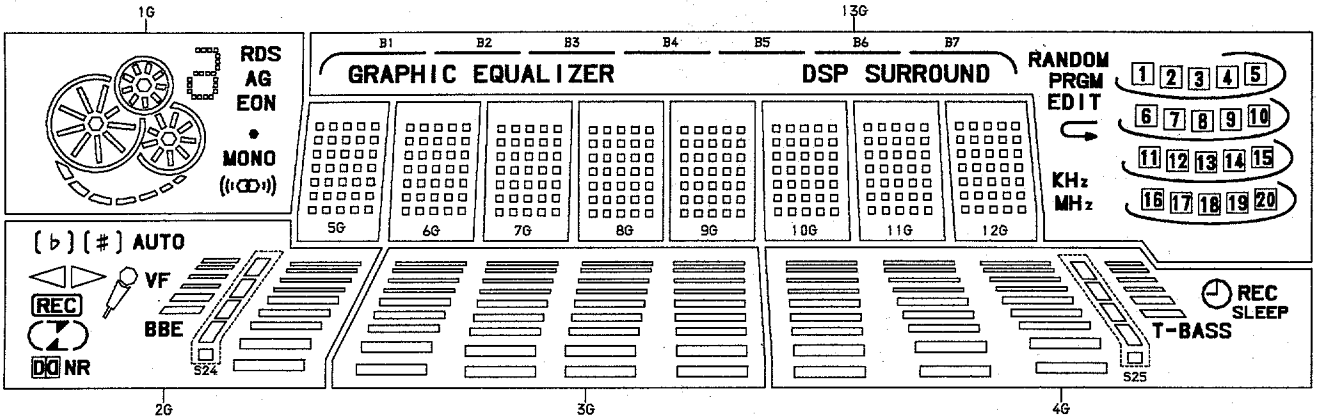
2SA1235F
2SC2714
2SC3052F
CMBT5401
CMBT5551
CSA1362GR
CSD1306E
DTA114WK

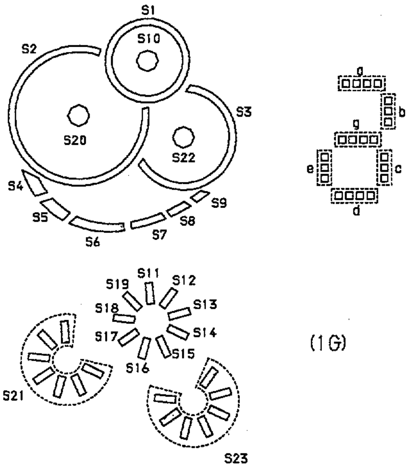
DTA123JK
RN1410
RT1N141C
RT1N144C
RT1P141C
RT1P144C
RT1P441C

FL GRID ASSIGNMENT & ANODE CONNECTION

FL, BJ602GK

GRID ASSIGNMENT


1G
13G
B1
B2
B3
B4
B5
B6
B7
GRAPHIC EQUALIZER
DSP SURROUND
RDS
AG
EON
MONO
RANDOM
PRGM
EDIT
KHz
MHz
1 2 3 4 5
6 7 8 9 10
11 12 13 14 15
16 17 18 19 20
5G
6G
7G
8G
9G
10G
11G
12G
[♭] [#] AUTO
VF
REC
BBE
NR
S24
S25
REC
SLEEP
T-BASS
2G
3G
4G


S1
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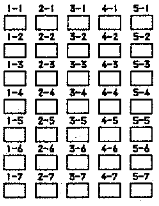
S23

(1G)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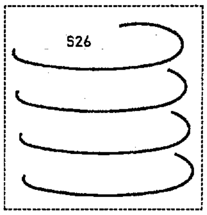
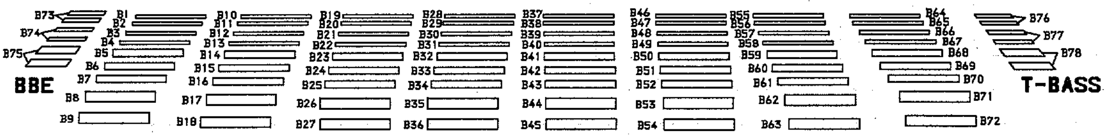
1-7 2-7 3-7 4-7 5-7

(5G~12G)



(13G)


B73
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B72
B76
B77
B78
T-BASS

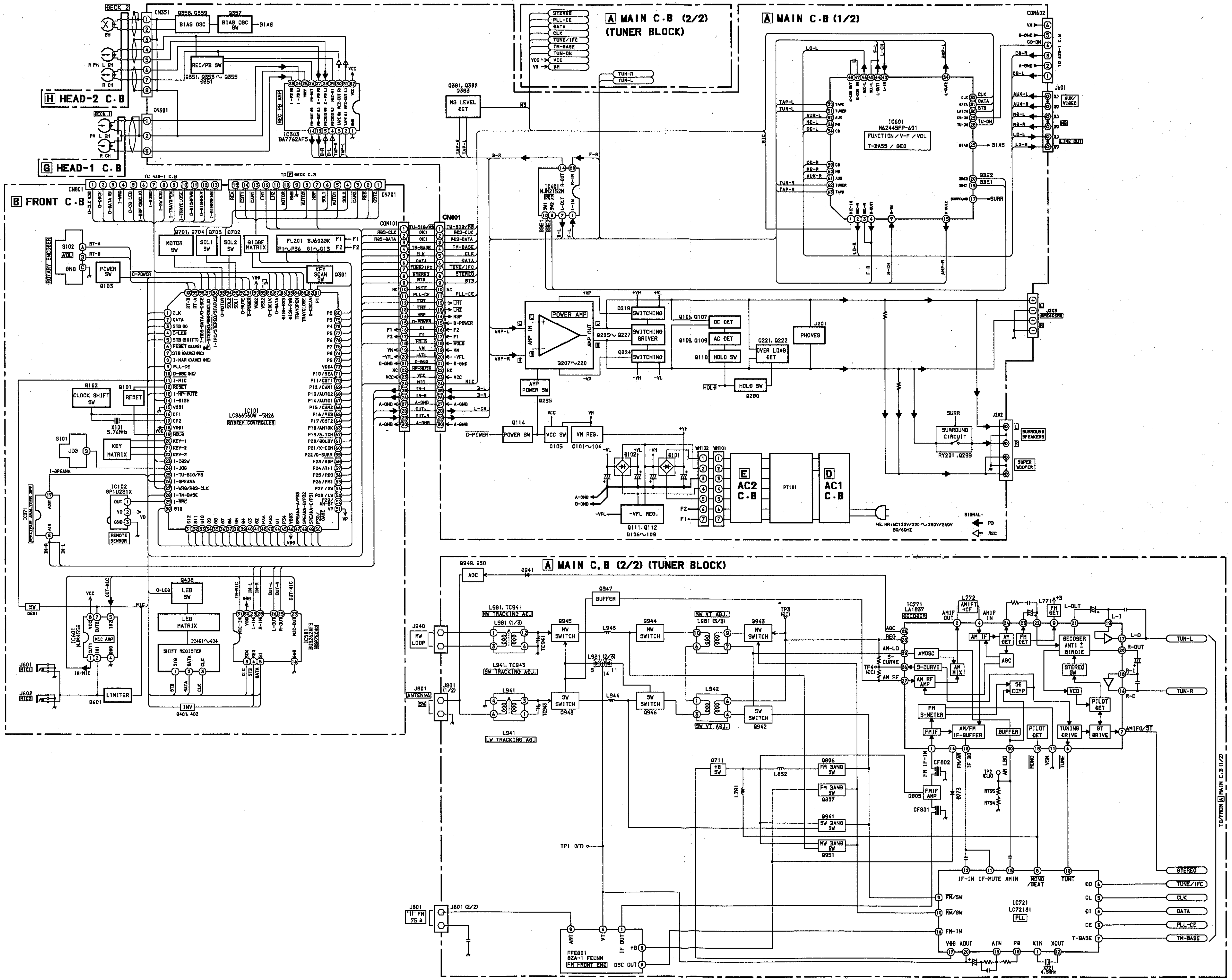
(2G) (3G) (4G)

ANODE CONNECTION

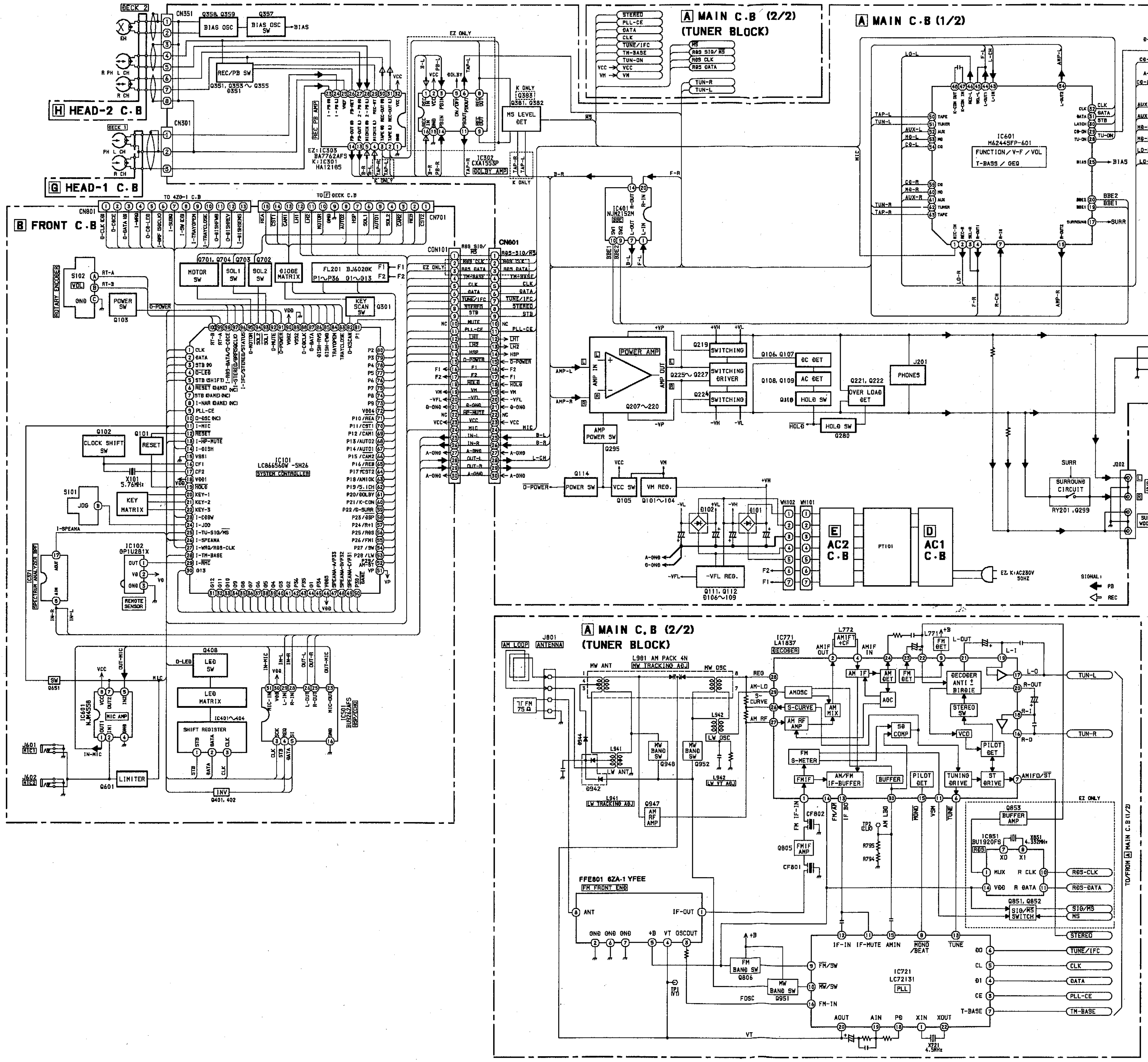
	1G	2G	3G	4G	5G-12G	13G
P1	**EON**	B9	B45	**REC**	1-1	**DSP SURROUND**
P2	**AG**	**DD NR**	B36	B72	2-1	**GRAPHIC EQUALIZER**
P3	●	**BBE**	B27	B63	3-1	B7
P4	**MONO**	S24	B18	B54	4-1	B6
P5	((·∞·))	BB	B44	◷	5-1	B5
P6	**RDS**	(	B35	B71	1-2	B4
P7	b	⇄	B26	B62	2-2	B3
P8	c	)	B17	B53	3-2	B2
P9	a, d, g	B7	B43	**SLEEP**	4-2	B1
P10	e	**REC**	B34	B70	5-2	**RANDOM**
P11	S1	◁	B25	B61	1-3	**PRGM**
P12	S11	▷	B16	B52	2-3	**EDIT**
P13	S12	B6	B42	**T-BASS**	3-3	⊂
P14	S19	♭ ♯	B33	B69	4-3	**KHz**
P15	S13	((♭))	B24	B60	5-3	**MHz**
P16	S10	((♯))	B15	B51	1-4	S26
P17	S18	B5	B41	B78	2-4	**16**
P18	S14	B75	B32	B68	3-4	**11**

	1G	2G	3G	4G	5G-12G	13G
P19	S17	B74	B23	B59	4-4	**6**
P20	S15	B73	B14	B50	5-4	**1**
P21	S16	B4	B40	B77	1-5	**17**
P22	S3	🎤 VF	B31	B67	2-5	**12**
P23	S23	**AUTO**	B22	B58	3-5	**7**
P24	S22	—	B13	B49	4-5	**2**
P25	S9	B3	B39	B76	5-5	**18**
P26	S8	—	B30	B66	1-6	**13**
P27	S7	—	B21	B57	2-6	**8**
P28	S6	—	B12	B48	3-6	**3**
P29	S5	B2	B38	S25	4-6	**19**
P30	S4	—	B29	B65	5-6	**14**
P31	S2	—	B20	B56	1-7	**9**
P32	S21	—	B11	B47	2-7	**4**
P33	S20	B1	B37	—	3-7	**20**
P34	—	—	B28	B64	4-7	**15**
P35	—	—	B19	B55	5-7	**10**
P36	—	—	B10	B46	—	**5**

BLOCK DIAGRAM – 1 (HE, HR : MAIN / FRONT)

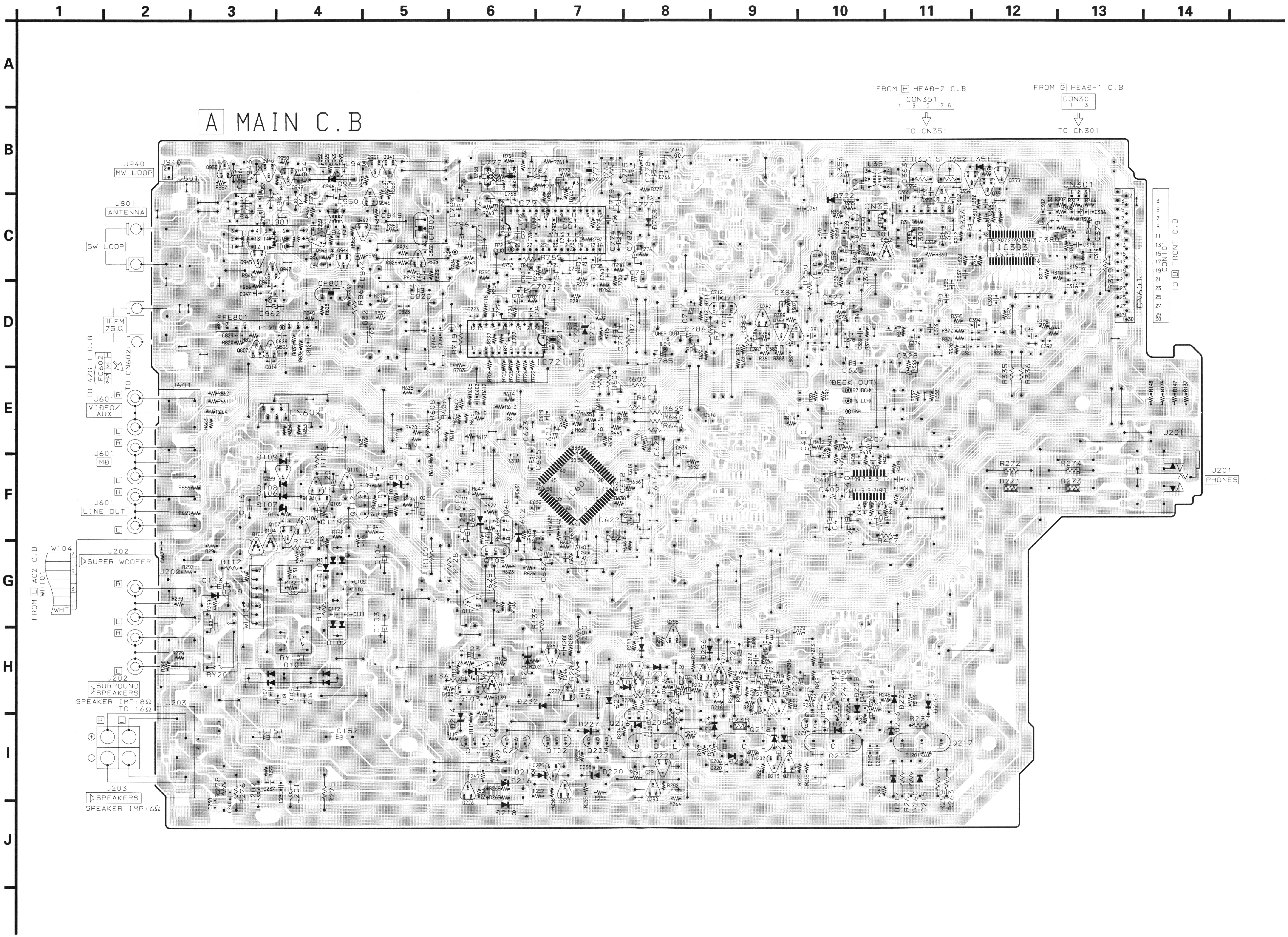

H HEAD-2 C.B
G HEAD-1 C.B
B FRONT C.B
A MAIN C.B (2/2) (TUNER BLOCK)
A MAIN C.B (1/2)
DECK 2
DECK 1
CN351
CN301
CN801
CN701
CON101
CN901
CON602
Q358, Q359
BIAS OSC
Q357
BIAS OSC SW
BIAS
REC/PB SW
Q351, Q353 ~ Q355
Q851
REC PB AMP
IC303
BA7762AFS
Q381, Q382
Q383
MS LEVEL DET
IC401
NJM2152M
IC601
M62445FP-601
FUNCTION / V-F / VOL
T-BASS / GEQ
AUX/VIDEO
LINE OUT
J601
TO 42B-1 C.B
TO F DECK C.B
MOTOR SW
SOL1 SW
SOL2 SW
Q701, Q704
Q703
Q702
DIODE MATRIX
FL201 BJ602GK
P1~P36 G1~G13
KEY SCAN
Q301
ROTARY ENCODER
S102
VOL
POWER SW
Q103
D-POWER
IC101
LC866560W-5H26
SYSTEM CONTROLLER
Q102
CLOCK SHIFT SW
Q101
RESET
X101
5.76MHz
S101
JOG
KEY MATRIX
IC102
GP1U281X
REMOTE SENSOR
SPECTRUM ANALYZER (BP)
LED SW
Q408
LED MATRIX
SHIFT REGISTER
IC401~404
INV
Q401, 402
IC601
NJM4558
MIC AMP
LIMITER
Q601
Q451
J601 MIC1
J602 MIC2
POWER AMP
Q207~220
AMP IN
AMP OUT
AMP POWER SW
Q295
Q219
SWITCHING
Q225~Q227
SWITCHING DRIVER
Q224
Q106, Q107
DC DET
Q108, Q109
AC DET
Q110
HOLD SW
Q221, Q222
OVER LOAD DET
J201
PHONES
HOLD SW
Q280
J203
SPEAKERS
J202
SURROUND SPEAKERS
SUPER WOOFER
SURROUND CIRCUIT
RY201, Q299
Q114
POWER SW
VCC SW
VM REG.
Q105
Q101~104
-VFL REG.
Q111, Q112
Q106~109
E AC2 C.B
PT101
D AC1 C.B
HE, HR : AC125V/220 ~ 250V/240V 50/60Hz
SIGNAL: PB REC
Q949, 950
AGC
Q941
Q947
BUFFER
L981, TC941
MW TRACKING ADJ.
J940
MW LOOP
Q945
MW SWITCH
L943
Q944
MW SWITCH
MW VT ADJ.
L981 (3/3)
Q943
MW SWITCH
TP3 (DC)
L941, TC943
SW TRACKING ADJ.
J801 ANTENNA SW
J801 (1/2)
L941
SW SWITCH
Q948
L944
SW SWITCH
Q946
L942
SW SWITCH
Q942
SW VT ADJ.
LW TRACKING ADJ.
IC771
LA1837
DECODER
L772
AMIF +CF
L771
FM DET
AM IF
AM DET
DECODER ANTI BIRDIE
STEREO SW
AMOSC
S-CURVE
AM MIX
AM RF AMP
SD COMP
VCO
PILOT DET
FM S-METER
AM/FM IF-BUFFER
BUFFER
PILOT DET
TUNING DRIVE
ST DRIVE
TUN-L
TUN-R
Q711 +B SW
L832
Q806 FM BAND SW
Q807 FM BAND SW
Q941 SW BAND SW
MW BAND SW
Q951
Q805 FMIF AMP
CF802
CF801
L781
TP1 (VT)
J801 FM 75Ω
J801 (2/2)
FFE801
8ZA-1 FEUNM
FM FRONT END
IC721
LC72131
PLL
X721 4.5MHz
STEREO
TUNE/IFC
CLK
DATA
PLL-CE
TM-BASE
TO/FROM A MAIN C.B (1/2)

SCHEMATIC DIAGRAM – 2 (EZ, K : MAIN / FRONT)



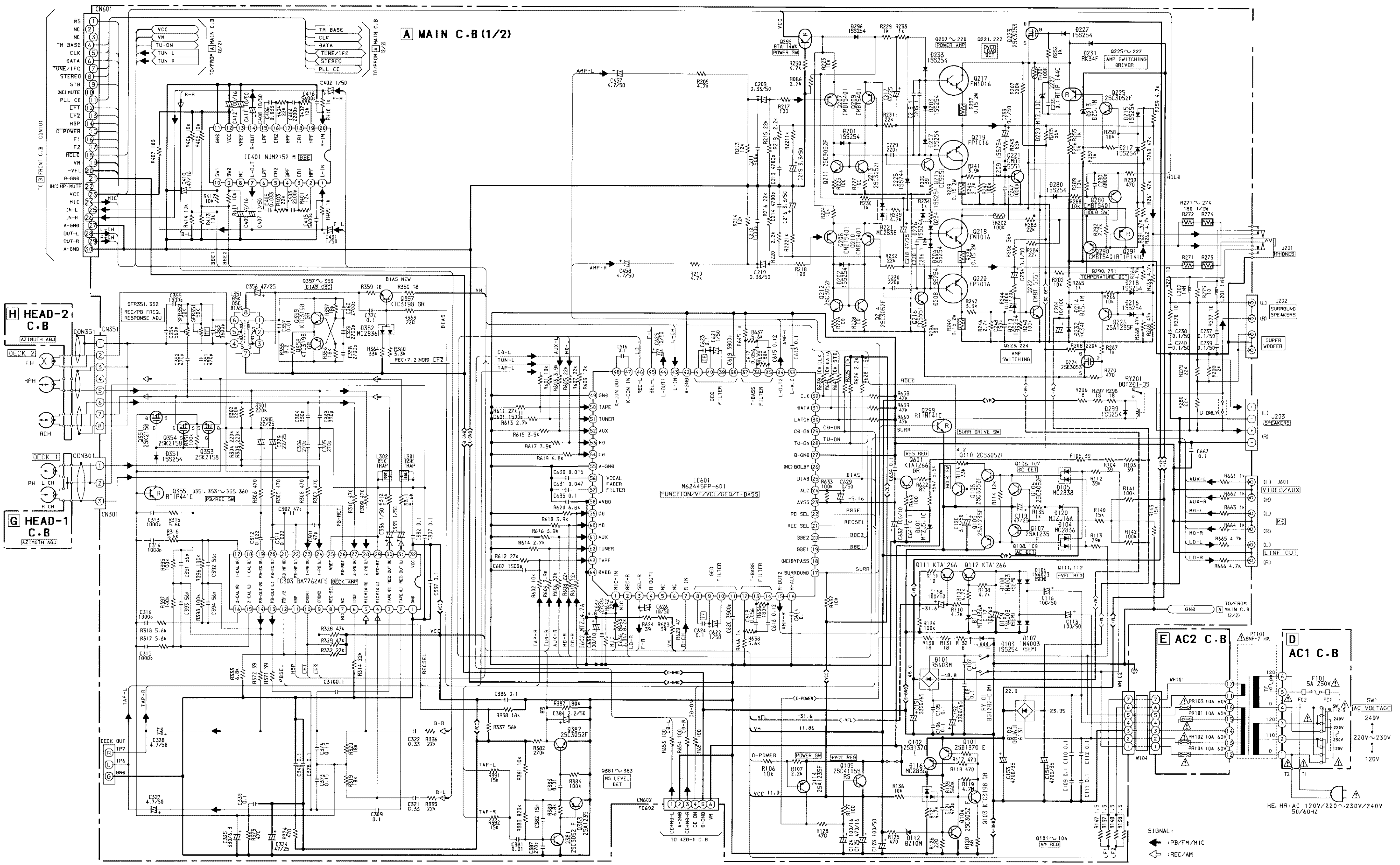
DECK 2
CN351
Q358, Q359
BIAS OSC
Q357
BIAS OSC SW
BIAS
REC/PB SW
Q351, Q353～Q355
H HEAD-2 C.B
DECK 1
CN301
G HEAD-1 C.B
EZ ONLY
EZ:IC303 BA7762AFS
K:IC301 HA12185
REC PB AMP
IC302 CXA1553P
DOLBY AMP
K ONLY
Q383
Q381, Q382
MS LEVEL DET
A MAIN C.B (2/2)
(TUNER BLOCK)
A MAIN C.B (1/2)
STEREO
PLL-CE
DATA
CLK
TUNE/IFC
TM-BASE
TUN-ON
RDS SIO/MS
RDS CLK
RDS DATA
TUN-R
TUN-L
CON602
TO 4Z0-1 C.B
J601
AUX/VIDEO
MD
LINE OUT
IC601
M62445FP-601
FUNCTION/V-F/VOL
T-BASS/GEQ
BIAS
BBE2
BBE1
SURR
IC401
NJM2152M
CN801
TO 4Z0-1 C.B
TO F DECK C.B
CN701
B FRONT C.B
ROTARY ENCODER
S102
VOL
POWER SW
Q103
MOTOR SW
SOL1 SW
SOL2 SW
DIODE MATRIX
Q701, Q704
Q703
Q702
FL201 BJ6020K
F1
F2
P1～P36
G1～G13
KEY SCAN SW
Q301
CON101
CN601
IC101
LC866560W-5H26
SYSTEM CONTROLLER
Q102
CLOCK SHIFT SW
Q101
RESET
X101 5.76MHz
S101
JOG
KEY MATRIX
IC102
GP1U28IX
REMOTE SENSOR
IC501
SPECTRUM ANALYZER DSP
POWER AMP
Q207～220
AMP POWER SW
Q295
Q219
SWITCHING
SWITCHING DRIVER
Q225～Q227
Q224
Q106, Q107
DC DET
Q108, Q109
AC DET
Q110
HOLD SW
Q221, Q222
OVER LOAD DET
J201
PHONES
HOLD SW
Q280
J203
SPEAKERS
Q114
POWER SW
VCC SW
Q105
VH REG.
Q101～104
-VFL REG.
Q111, Q112
D106～109
WH102
WH101
E AC2 C.B
PT101
D AC1 C.B
EZ K:AC230V 50HZ
SURR
SURROUND CIRCUIT
RY201, Q299
J202
SURROUND SPEAKERS
SUPER WOOFER
SIGNAL: PB REC
Q408
LED SW
LED MATRIX
IC401～404
SHIFT REGISTER
INV
Q401, 402
IC501
BU9254FS
SW
Q651
IC601 NJM4558
MIC AMP
J601 MIC1
J602 MIC2
LIMITER
Q601
A MAIN C.B (2/2)
(TUNER BLOCK)
AM LOOP
J801 ANTENNA
FM 75Ω
L981 AM PACK 4N
MW TRACKING ADJ
MW ANT
MW OSC
LW ANT
LW OSC
L941 LW TRACKING ADJ
L942 LW VT ADJ
MW BAND SW Q948
MW BAND SW Q952
Q947 AM RF AMP
IC771 LA1837
DECODER
L772 AMIFT +CF
L771
FM DET
AM IF
AM DET
FM DET
AGC
DECODER ANTI BIRDIE
STEREO SW
VCO
PILOT DET
SD COMP
AMOSC
S-CURVE
AM MIX
AM RF AMP
FM S-METER
FMIF
AM/FM IF-BUFFER
BUFFER
PILOT DET
TUNING DRIVE
ST DRIVE
AMIFO/ST
TUN-L
TUN-R
CF802
Q805 FMIF AMP
CF801
EZ ONLY
Q853 BUFFER AMP
IC851 BU1920FS
RDS
X851 4.332MHz
RDS-CLK
RDS-DATA
Q851, Q852
SIO/MS SWITCH
SIO/MS
MS
STEREO
TUNE/IFC
CLK
DATA
PLL-CE
TM-BASE
TO/FROM A MAIN C.B (1/2)
FFE801 6ZA-1 YFEE
FM FRONT END
FM BAND SW Q806
MW BAND SW Q951
IC721 LC72131
PLL
X721 4.5MHz

WIRING – 1 (HE, HR : MAIN)

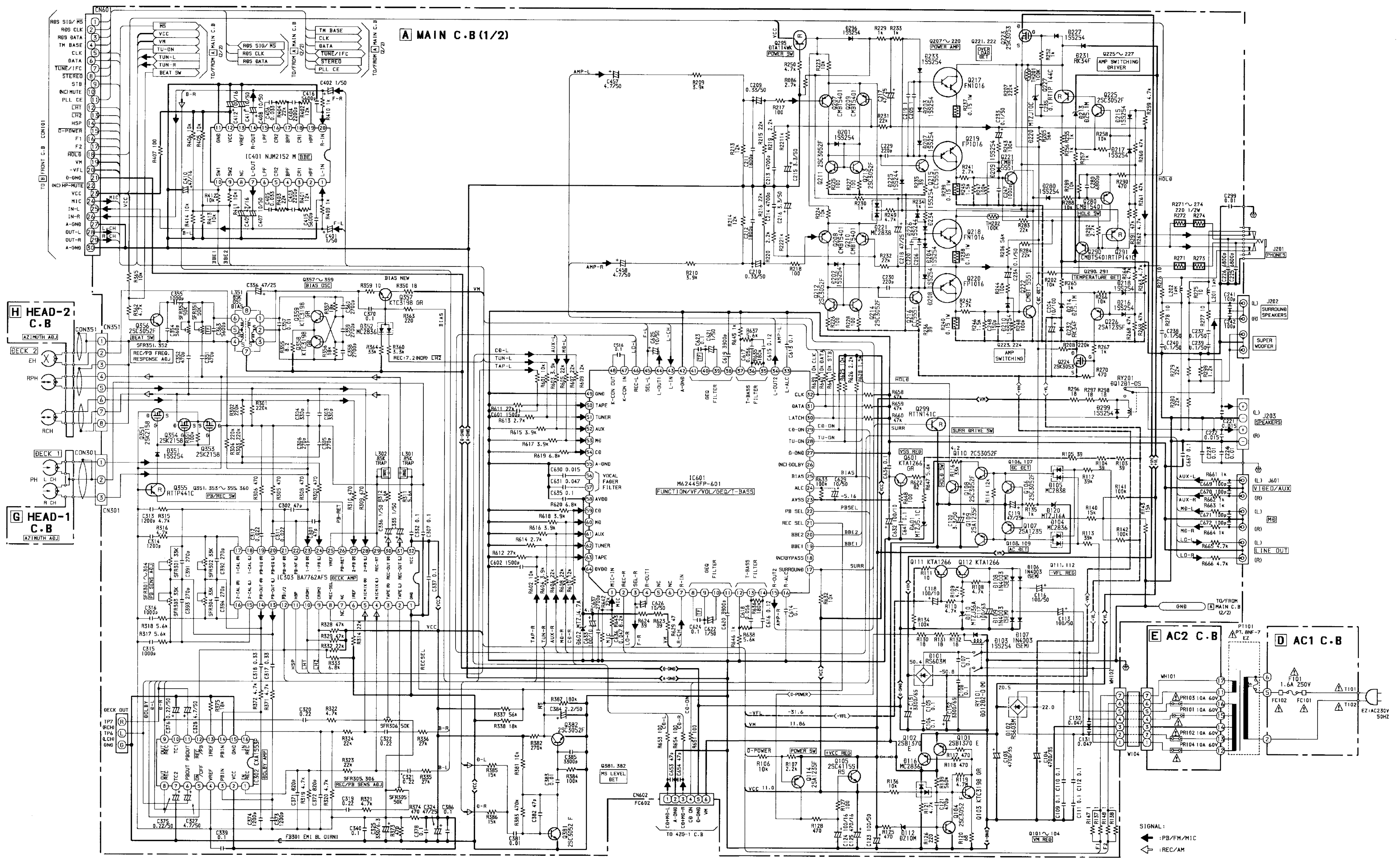


A MAIN C.B
FROM H HEAD-2 C.B
CON351
TO CN351
FROM G HEAD-1 C.B
CON301
TO CN301
J940
MW LOOP
J801
ANTENNA
SW LOOP
FM 75Ω
TO 4Z0-1 C.B
FC602
TO CN602
J601
VIDEO/AUX
J601
MD
J601
LINE OUT
FROM E AC2 C.B
WH101
W104
WHT
J202
SUPER WOOFER
J202
SURROUND SPEAKERS
SPEAKER IMP:8Ω TO 16Ω
J203
SPEAKERS
SPEAKER IMP:6Ω
(DECK OUT)
IC601
IC721
IC303
CN601
CON101
TO B FRONT C.B
J201
PHONES

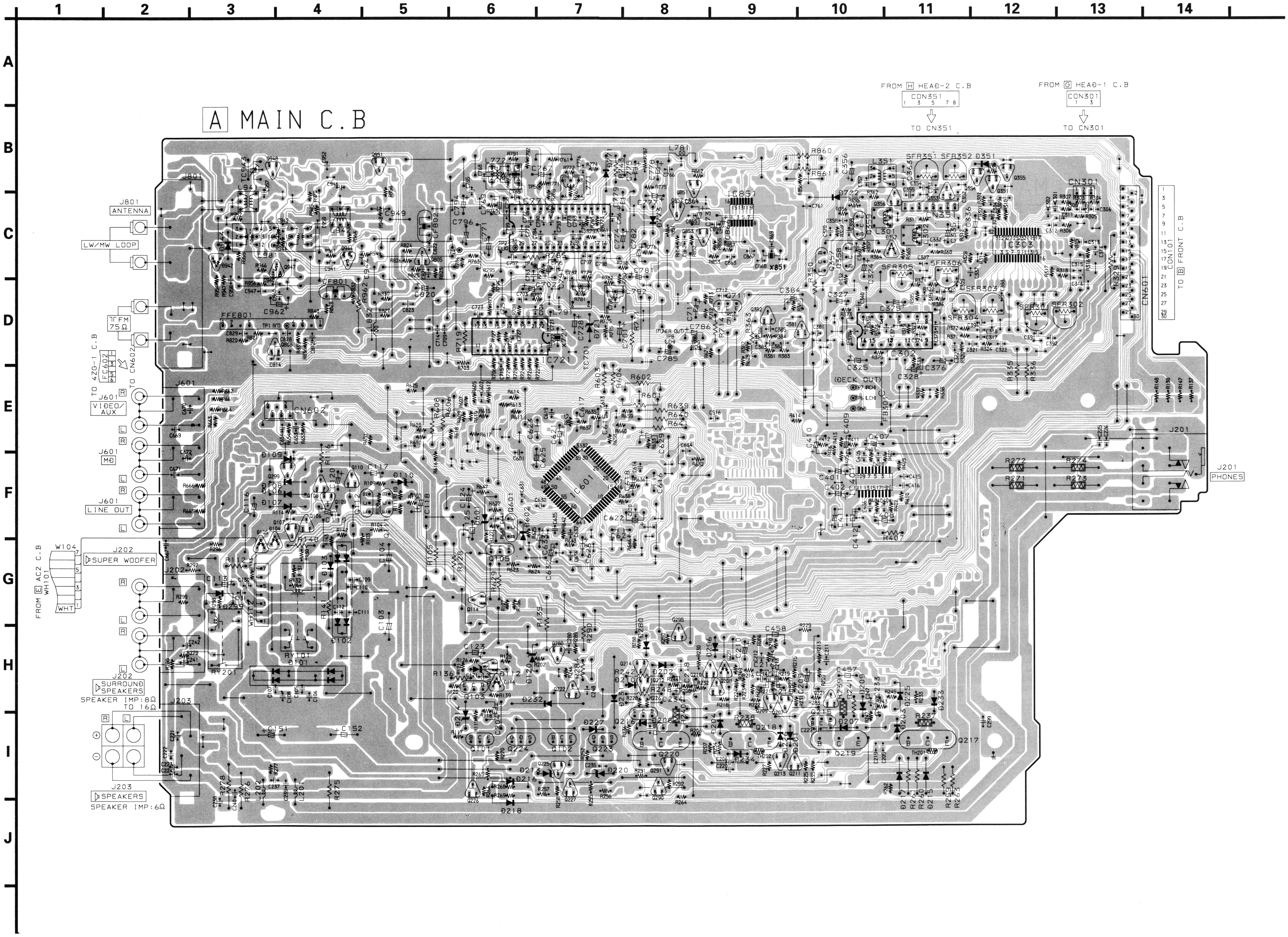
SCHEMATIC DIAGRAM – 1 (HE, HR : MAIN 1 / 2)


A MAIN C.B (1/2)
CN601
TO B FRONT C.B CON101
TO/FROM A MAIN C.B (2/2)
IC401 NJM2152 M BBE
H HEAD-2 C.B
AZIMUTH ADJ
DECK 2
G HEAD-1 C.B
DECK 1
CN351
CN301
Q351, 352 SFR351, 352 REC/PB FREQ. RESPONSE ADJ
Q357~359 BIAS OSC
Q352 MC2836
Q355 RT1P441C
Q351, 353~355, 360 PB/REC SW
IC303 BA7762AFS DECK AMP
IC601 M62445FP-601 FUNCTION/VF/VOL/GEQ/T-BASS
Q381~383 MS LEVEL DET
DECK OUT
TAP-L
TAP-R
CN602 FC602
TO 426-1 C.B
Q299 BTA114WK POWER SW
Q207~220 POWER AMP
Q221, 222 OVER LOAD DET
Q225~227 AMP SWITCHING DRIVER
Q223, 224 AMP SWITCHING
Q290, 291 TEMPERATURE DET
RY201 BQ1201-05
Q299 RT1N141C SURR DRIVE SW
J201 PHONES
J202 SURROUND SPEAKERS
SUPER WOOFER
J203 SPEAKERS
J601 VIDEO/AUX
MD
LINE OUT
Q110 2SC5052F
Q601 KTA1266 VSS REG
Q106 DC DET
Q108, 109 AC DET
Q111 KTA1266
Q112 KTA1266
Q111, 112 -VFL REG
Q114 POWER SW
Q105 +VCC REG
Q101~104 VM REG
RY101 BG1202-0
E AC2 C.B
D AC1 C.B
PT101 BNF-7 HR
F101 5A 250V
SW1 AC VOLTAGE
240V
220V~230V
120V
HE, HR: AC 120V/220~230V/240V 50/60HZ
SIGNAL:
:PB/FM/MIC
:REC/AM

SCHEMATIC DIAGRAM – 2 (EZ : MAIN 1 / 2)


A MAIN C.B (1/2)
H HEAD-2 C.B
G HEAD-1 C.B
E AC2 C.B
D AC1 C.B
TO B FRONT C.B CN101
CN601
CN351
CN301
CN602
IC401 NJM2152 M BBE
IC601 M62446SFP-601 FUNCTION/VF/VOL/GEQ/T-BASS
IC303 BA7762AFS REC AMP
IC302 CXA1553P DOLBY AMP
POWER AMP
AMP SWITCHING DRIVER
BIAS OSC
BEAT SW
PB/REC SW
REC/PB SENS ADJ
MS LEVEL DET
TEMPERATURE DET
SURR DRIVE SW
POWER SW
+VCC REG
VFL REG
VM REG
DC DET
AC DET
AMP SWITCHING
J201 PHONES
J202 SURROUND SPEAKERS
SUPER WOOFER
J203 SPEAKERS
J601 VIDEO/AUX
MD
LINE OUT
DECK 1
DECK 2
AZIMUTH ADJ
TO 420-1 C.B
TO/FROM A MAIN C.B (2/2)
EZ:AC230V 50HZ
F101 1.6A 250V
SIGNAL:
:PB/FM/MIC
:REC/AM

WIRING – 2 (EZ : MAIN)


1
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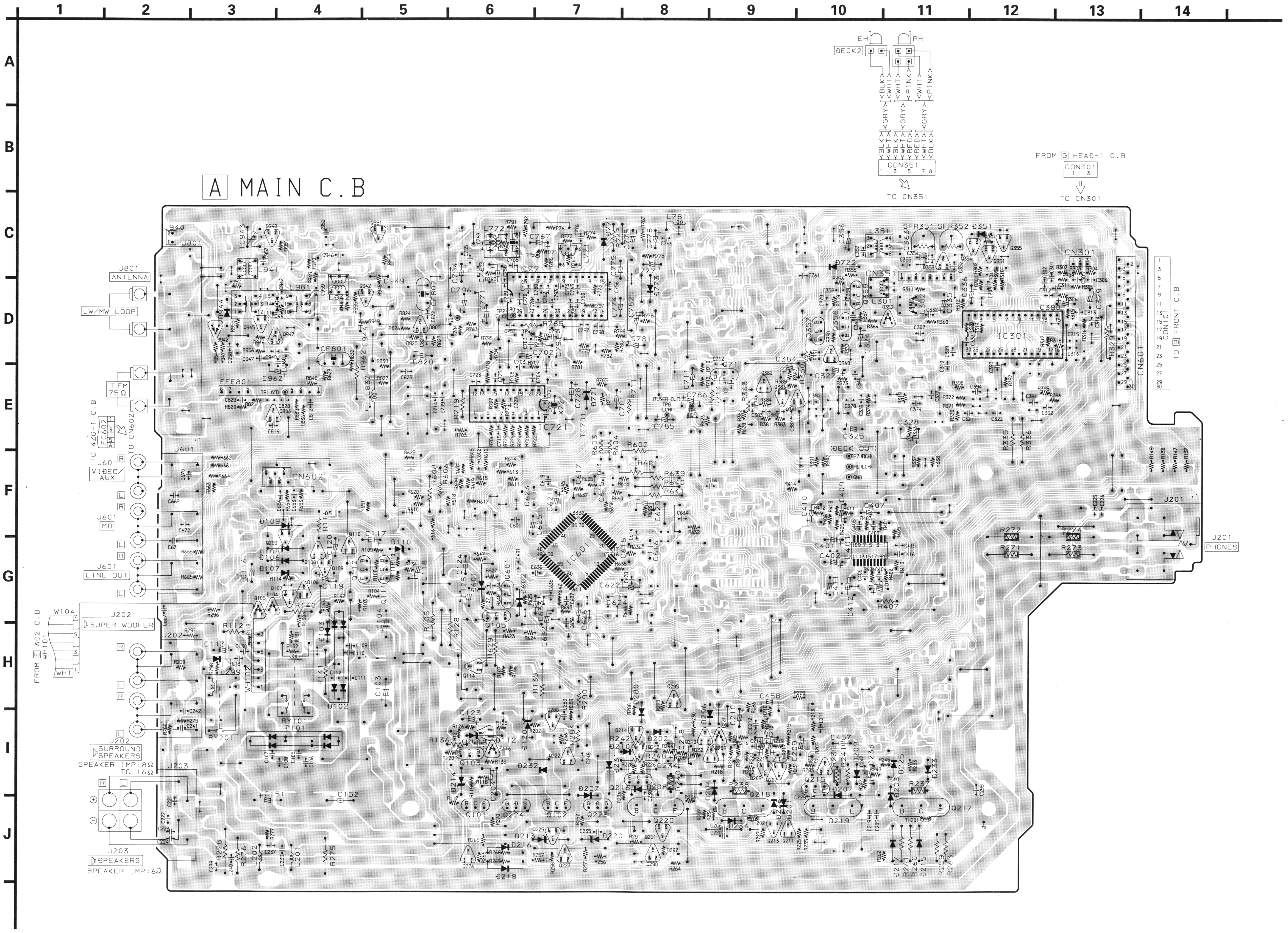
12
13
14
A
B
C
D
E
F
G
H
I
J
A MAIN C.B
FROM H HEAD-2 C.B
CON351
TO CN351
FROM G HEAD-1 C.B
CON301
TO CN301
TO B FRONT C.B
CON101
CN601
CN301
J801
ANTENNA
LW/MW LOOP
FM 75Ω
TO 4ZG-1 C.B
FC602
TO CN602
J601
VIDEO/AUX
J601
MD
J601
LINE OUT
CN602
W104
J202
SUPER WOOFER
FROM E AC2 C.B
WH101
WHT
J202
SURROUND SPEAKERS
SPEAKER IMP: 8Ω TO 16Ω
J203
SPEAKERS
SPEAKER IMP: 6Ω
J201
PHONES
IC601
IC303
IC851
IC721
IC301
IC302
(DECK OUT)
RY101
RY201
L351
SFR351
SFR352
D351
TC701
X851
CF801
CF802
FFE801

WIRING – 3 (K: MAIN)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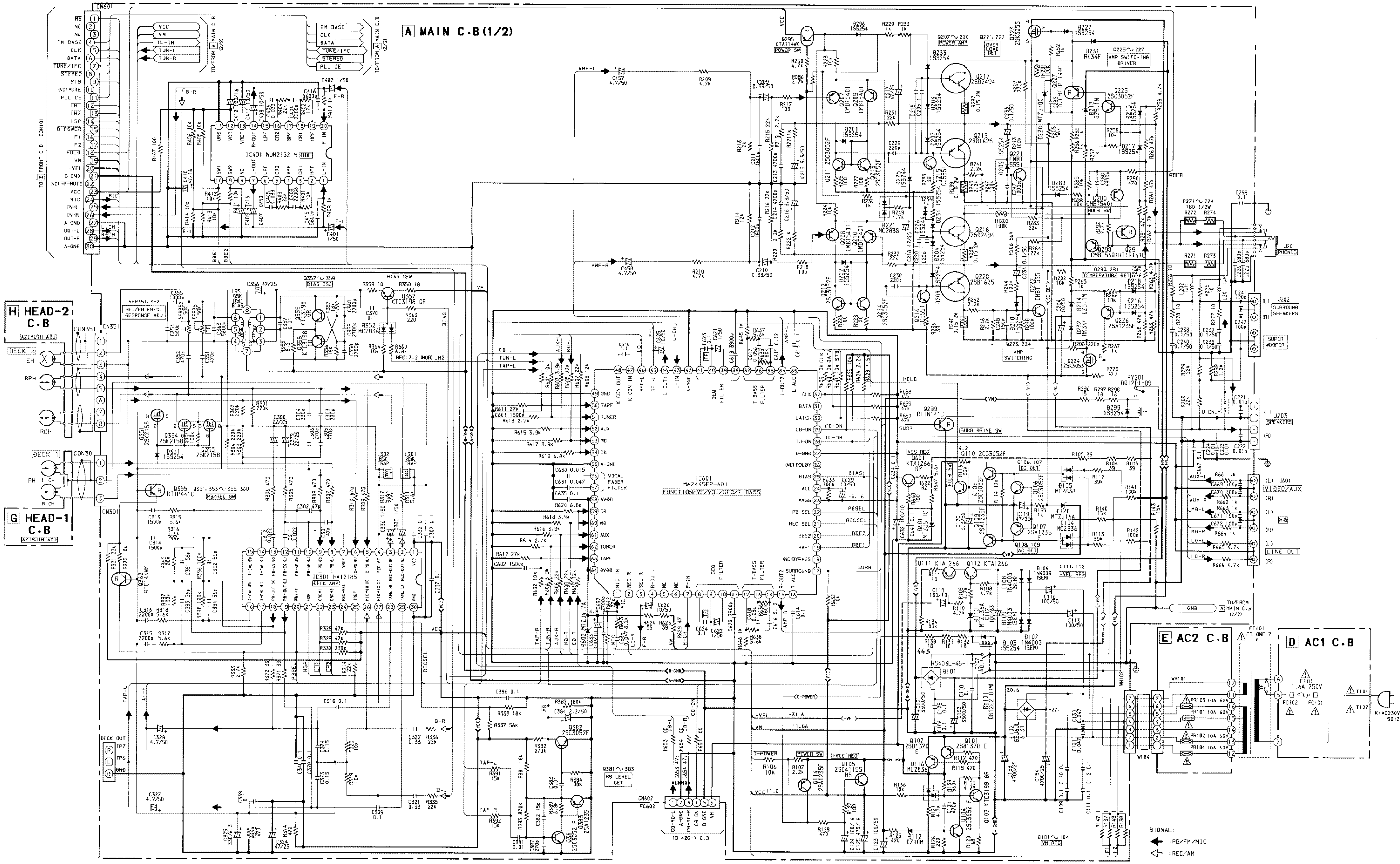
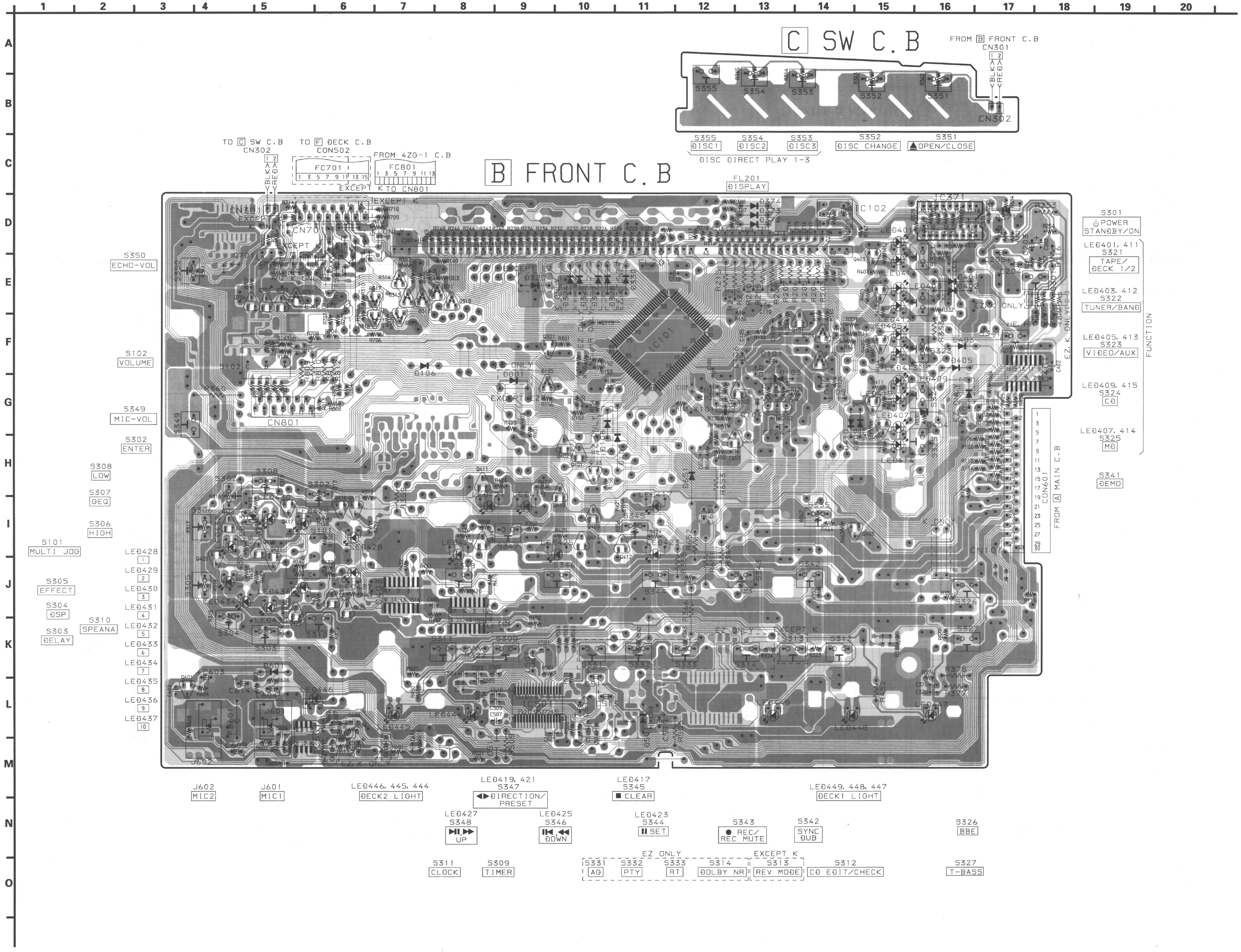
A
B
C
D
E
F
G
H
I
J
A MAIN C.B
DECK2
EH
PH
BLK
WHT
GRY
PINK
RED
CON351
TO CN351
FROM G HEAD-1 C.B
CON301
TO CN301
J801
ANTENNA
LW/MW LOOP
FM 75Ω
TO 4ZG-1 C.B
FC602
TO CN602
J601
VIDEO/AUX
MD
LINE OUT
R
L
W104
J202
SUPER WOOFER
FROM E AC2 C.B
WH101
WHT
SURROUND SPEAKERS
SPEAKER IMP: 8Ω TO 16Ω
J203
SPEAKERS
SPEAKER IMP: 6Ω
J201
PHONES
TO B FRONT C.B
CN101
CN601
CN301
IC301
IC601
IC721
FFE801
CN602
(DECK OUT)
(TUNER OUT)
RY101
RY201

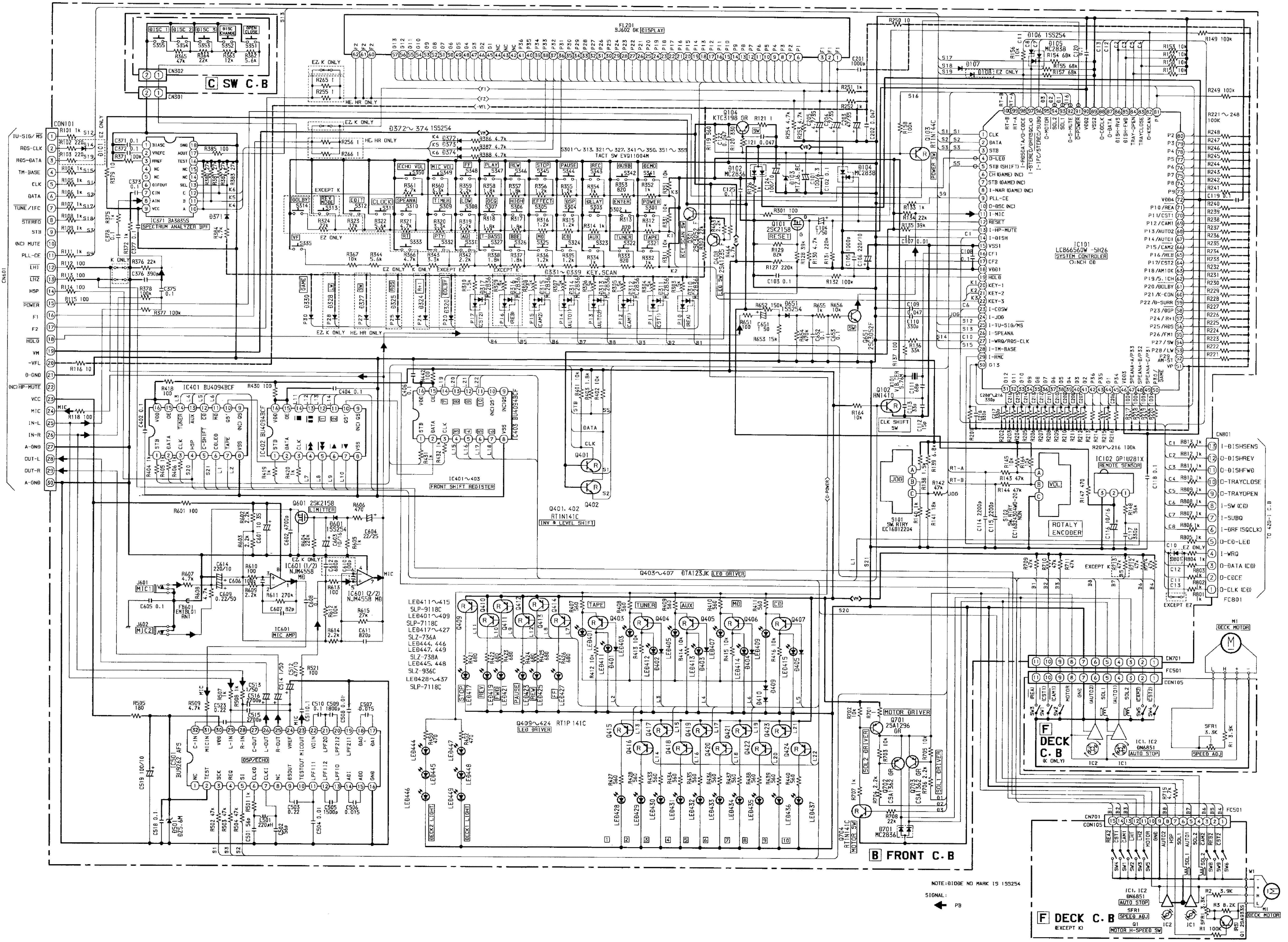
SCHEMATIC DIAGRAM – 3 (K : MAIN 1/2)


A MAIN C.B (1/2)
H HEAD-2 C.B
AZIMUTH ADJ
G HEAD-1 C.B
AZIMUTH ADJ
E AC2 C.B
D AC1 C.B
CN601
TO B FRONT C.B CON101
TO/FROM A MAIN C.B (2/2)
IC401 NJM2152 M BBE
IC301 HA12185 DECK AMP
IC601 M62445FP-601 FUNCTION/VF/VOL/GEQ/T-BASS
Q357∼359 BIAS OSC
Q295 POWER SW
Q207∼220 POWER AMP
Q221, 222 OVER LOAD DET
Q225∼227 AMP SWITCHING DRIVER
Q290, 291 TEMPERATURE DET
Q223, 224 AMP SWITCHING
Q299 SURR DRIVE SW
Q101∼104 VM REG
Q106, 107 DC DET
Q108, 109 AC DET
Q111, 112 -VFL REG
Q381∼383 MS LEVEL DET
Q355 PB/REC SW
POWER SW
+VCC REG
J201 PHONES
J202 SURROUND SPEAKERS
SUPER WOOFER
J203 SPEAKERS
J601 VIDEO/AUX
MD
LINE OUT
DECK 2
DECK 1
DECK OUT
TO AZG-1 C.B
CN602 FC602
PT101
F101 1.6A 250V
K:AC230V 50HZ
SIGNAL:
:PB/FM/MIC
:REC/AM

WIRING – 4 (FRONT)

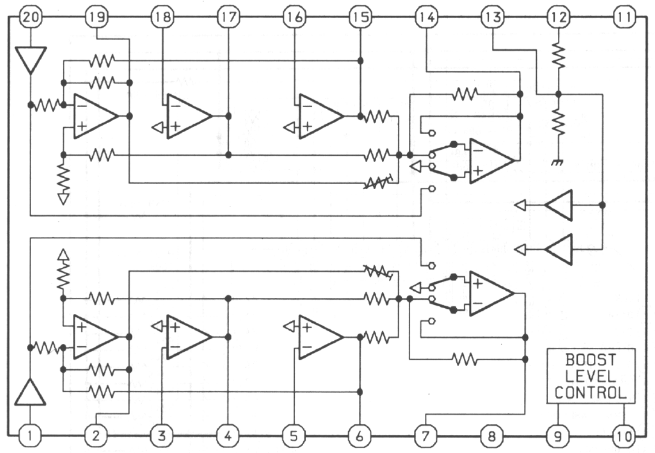

C SW C.B
FROM B FRONT C.B
CN301
BLK
RED
S355
S354
S353
S352
S351
CN302
S355 DISC1
S354 DISC2
S353 DISC3
DISC DIRECT PLAY 1-3
S352 DISC CHANGE
S351 ▲OPEN/CLOSE
B FRONT C.B
TO C SW C.B
CN302
TO F DECK C.B
CON502
FC701
FROM 4ZG-1 C.B
FC801
EXCEPT K TO CN801
FL201
DISPLAY
IC101
IC102
IC371
CN801
CN601
FROM A MAIN C.B
EXCEPT K
EZ ONLY
EZ, K ONLY
K ONLY
S350 ECHO-VOL
S102 VOLUME
S349 MIC-VOL
S302 ENTER
S308 LOW
S307 GEQ
S306 HIGH
S101 MULTI JOG
S305 EFFECT
S304 DSP
S303 DELAY
S310 SPEANA
LED428 1
LED429 2
LED430 3
LED431 4
LED432 5
LED433 6
LED434 7
LED435 8
LED436 9
LED437 10
S301 POWER STANDBY/ON
LED401, 411 S321 TAPE/DECK 1/2
LED403, 412 S322 TUNER/BAND
LED405, 413 S323 VIDEO/AUX
LED409, 415 S324 CD
LED407, 414 S325 MD
FUNCTION
S341 DEMO
J602 MIC2
J601 MIC1
LED446, 445, 444 DECK2 LIGHT
LED419, 421 S347 ◀▶DIRECTION/PRESET
LED417 S345 ■ CLEAR
LED449, 448, 447 DECK1 LIGHT
LED427 S348 ▶II,▶▶ UP
LED425 S346 I◀◀,◀◀ DOWN
LED423 S344 II SET
S343 ● REC/REC MUTE
S342 SYNC DUB
S326 BBE
S311 CLOCK
S309 TIMER
EZ ONLY
S331 AG
S332 PTY
S333 RT
S314 DOLBY NR
EXCEPT K
S313 REV MODE
S312 CD EDIT/CHECK
S327 T-BASS

SCHEMATIC DIAGRAM – 4 (FRONT)


C SW C.B
CN302
CN301
CN101
TO A MAIN C.B CN601
FL201 BJ602 GK DISPLAY
IC371 BA3835S SPECTRUM ANALYZER BPF
IC101 LC866560W-5H26 SYSTEM CONTROLLER
IC401 BU4094BCF
IC402 BU4094BCF
IC403 BU4094BCF
IC401~403 FRONT SHIFT REGISTER
Q401, 402 RT1N141C INV & LEVEL SHIFT
Q601 2SK2158 LIMITTER
IC601 NJM4558 MIC AMP
IC501 BU9262 AFS DSP/ECHO
Q403~407 DTA123JK LED DRIVER
Q409~424 RT1P141C LED DRIVER
IC102 GP1U281X REMOTE SENSOR
S101 SW.RTRY EC16B12204
ROTALY ENCODER
JOG
VOL
Q701 2SA1296 MOTOR DRIVER
SOL2 DRIVER
SOL1 DRIVER
Q704 RT1N141C MOTOR SW
D701 MC2836L
CN801
TO 4Z0-1 C.B
FC801
CN701
FC501
CON105
M1 DECK MOTOR
F DECK C.B (K ONLY)
IC1, IC2 ON6851 AUTO STOP
SFR1 SPEED ADJ
B FRONT C.B
F DECK C.B (EXCEPT K)
MOTOR H-SPEED SW
Q1 2SA933S
J601 MIC1
J602 MIC2
D372~374 1SS254
S301~313, 321~327, 341~350, 351~355 TACT SW EVQ11G04M
D331~D339 KEY SCAN
NOTE: DIODE NO MARK IS 1SS254
SIGNAL:
PB

IC BLOCK DIAGRAM – 1

IC, NJM2152M



20
19
18
17
16
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11
BOOST LEVEL CONTROL
1
2
3
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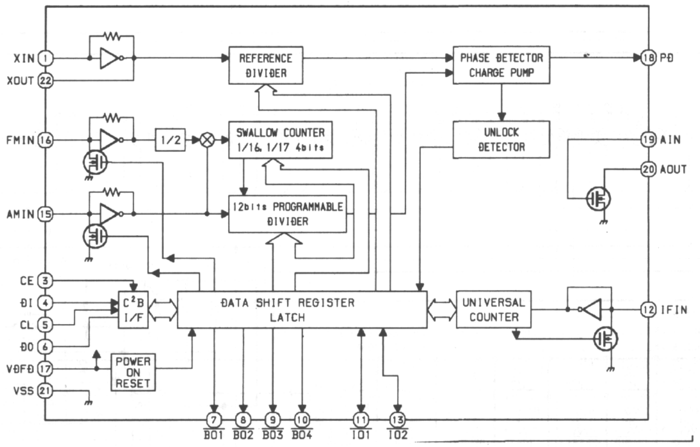
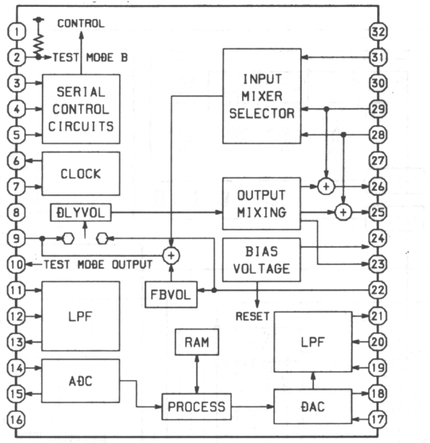
7
8
9
10

IC, LC72131D



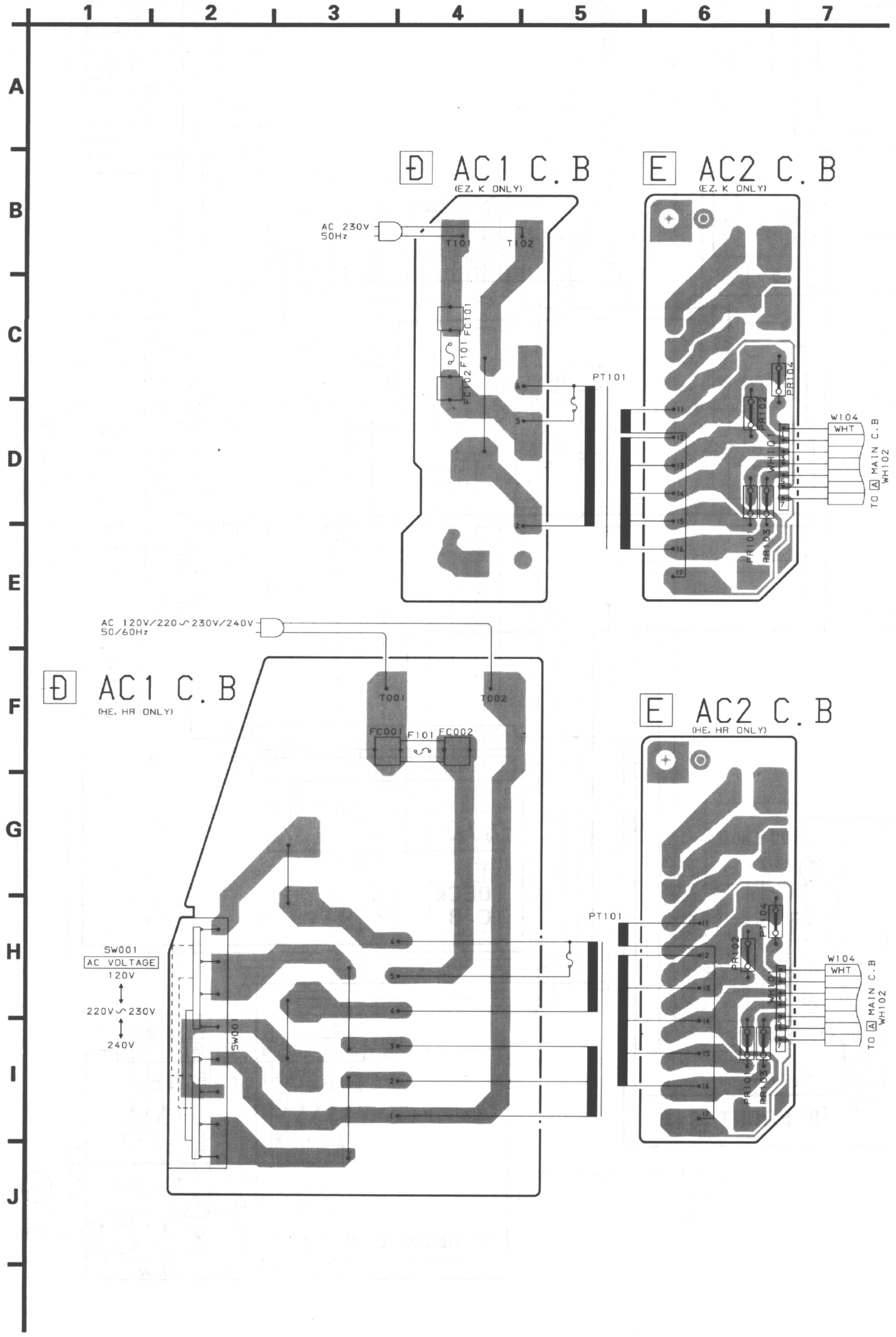
XIN 1
XOUT 22
FMIN 16
AMIN 15
CE 3
DI 4
CL 5
DO 6
VDFB 17
VSS 21
REFERENCE DIVIDER
PHASE DETECTOR CHARGE PUMP
SWALLOW COUNTER 1/16, 1/17 4bits
1/2
12bits PROGRAMMABLE DIVIDER
UNLOCK DETECTOR
C²B I/F
DATA SHIFT REGISTER LATCH
UNIVERSAL COUNTER
POWER ON RESET
18 PD
19 AIN
20 AOUT
12 IFIN
7 BO1
8 BO2
9 BO3
10 BO4
11 IO1
13 IO2

IC, BU9262AFS



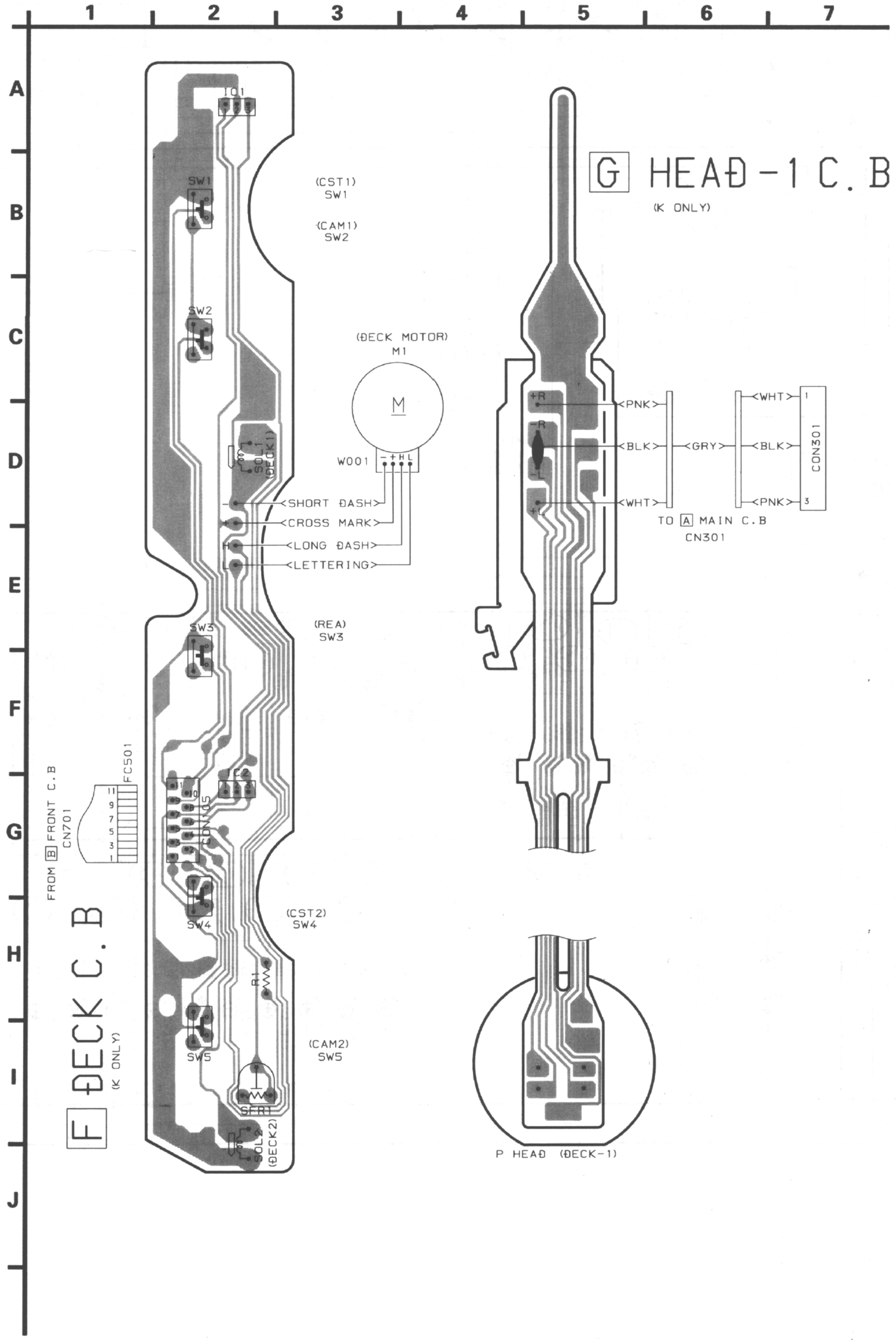
CONTROL
TEST MODE B
SERIAL CONTROL CIRCUITS
CLOCK
DLYVOL
TEST MODE OUTPUT
LPF
ADC
INPUT MIXER SELECTOR
OUTPUT MIXING
BIAS VOLTAGE
FBVOL
RESET
RAM
LPF
PROCESS
DAC
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
32
31
30
29
28
27
26
25
24
23
22
21
20
19
18
17

WIRING – 5 (AC1 / AC2)



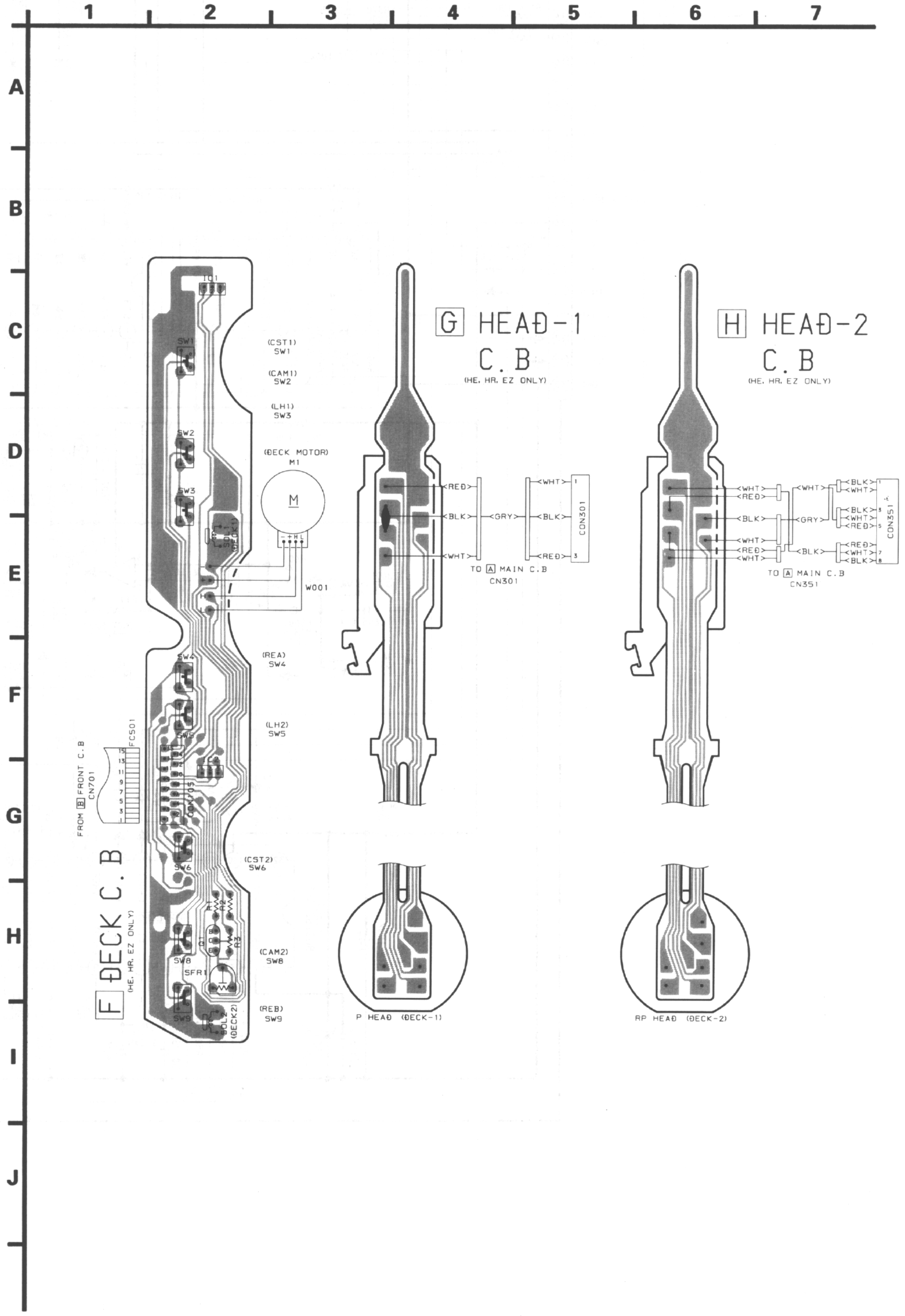
1
2
3
4
5
6
7
A
B
C
D
E
F
G
H
I
J
D AC1 C.B
(EZ, K ONLY)
E AC2 C.B
(EZ, K ONLY)
AC 230V 50Hz
T101
T102
FC101
F101
FC102
PT101
W104
WHT
TO A MAIN C.B W102
AC 120V/220∼230V/240V 50/60Hz
D AC1 C.B
(HE, HR ONLY)
T001
T002
FC001
F101
FC002
E AC2 C.B
(HE, HR ONLY)
PT101
W104
WHT
TO A MAIN C.B W102
SW001
AC VOLTAGE
120V
220V∼230V
240V

WIRING – 6 (DECK : 6ZM – 3 YPR2N)



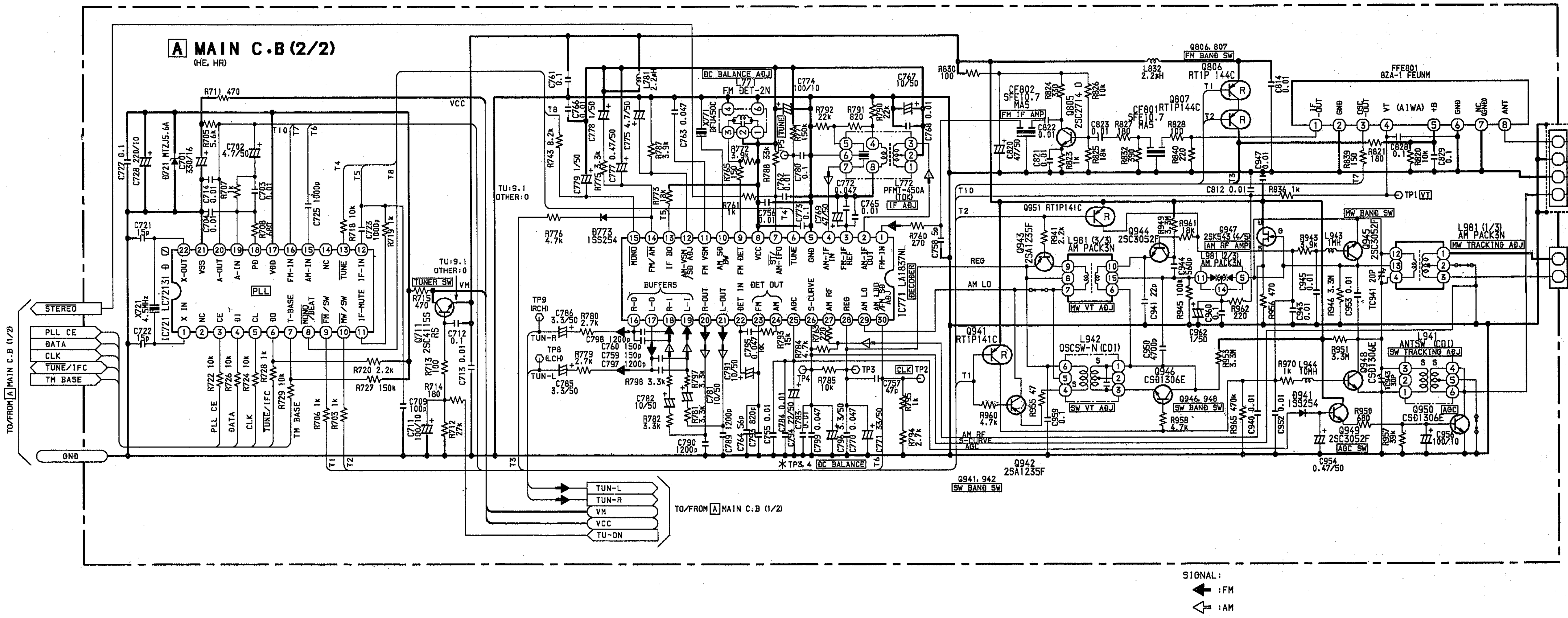
1
2
3
4
5
6
7
A
B
C
D
E
F
G
H
I
J
F DECK C.B
(K ONLY)
(CST1) SW1
(CAM1) SW2
(DECK MOTOR) M1
M
W001
SHORT DASH
CROSS MARK
LONG DASH
LETTERING
(REA) SW3
(CST2) SW4
(CAM2) SW5
FROM B FRONT C.B CN701
FC501
G HEAD-1 C.B
(K ONLY)
PNK
BLK
WHT
GRY
CN301
TO A MAIN C.B CN301
P HEAD (DECK-1)

WIRING – 7 (DECK : 2ZM – 3MK2 PR4NM / YPR4N)

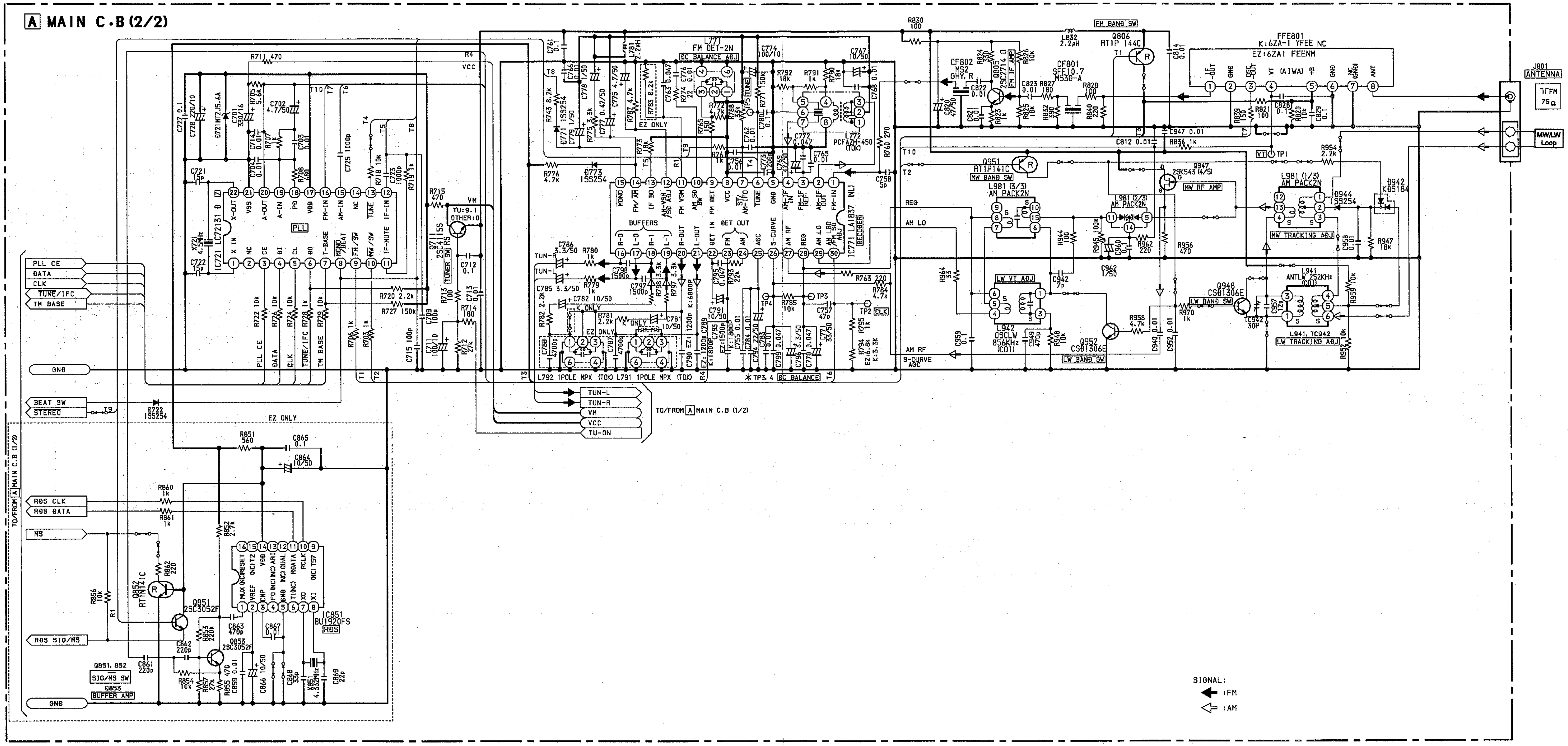


1
2
3
4
5
6
7
A
B
C
D
E
F
G
H
I
J
F DECK C.B
(HE, HR, EZ ONLY)
(CST1) SW1
(CAM1) SW2
(LH1) SW3
(DECK MOTOR) M1
M
W001
(REA) SW4
(LH2) SW5
(CST2) SW6
(CAM2) SW8
(REB) SW9
FROM B FRONT C.B CN701
FC501
G HEAD-1 C.B
(HE, HR, EZ ONLY)
H HEAD-2 C.B
(HE, HR, EZ ONLY)
RED
BLK
WHT
GRY
CN301
TO A MAIN C.B CN301
CN351
TO A MAIN C.B CN351
P HEAD (DECK-1)
RP HEAD (DECK-2)

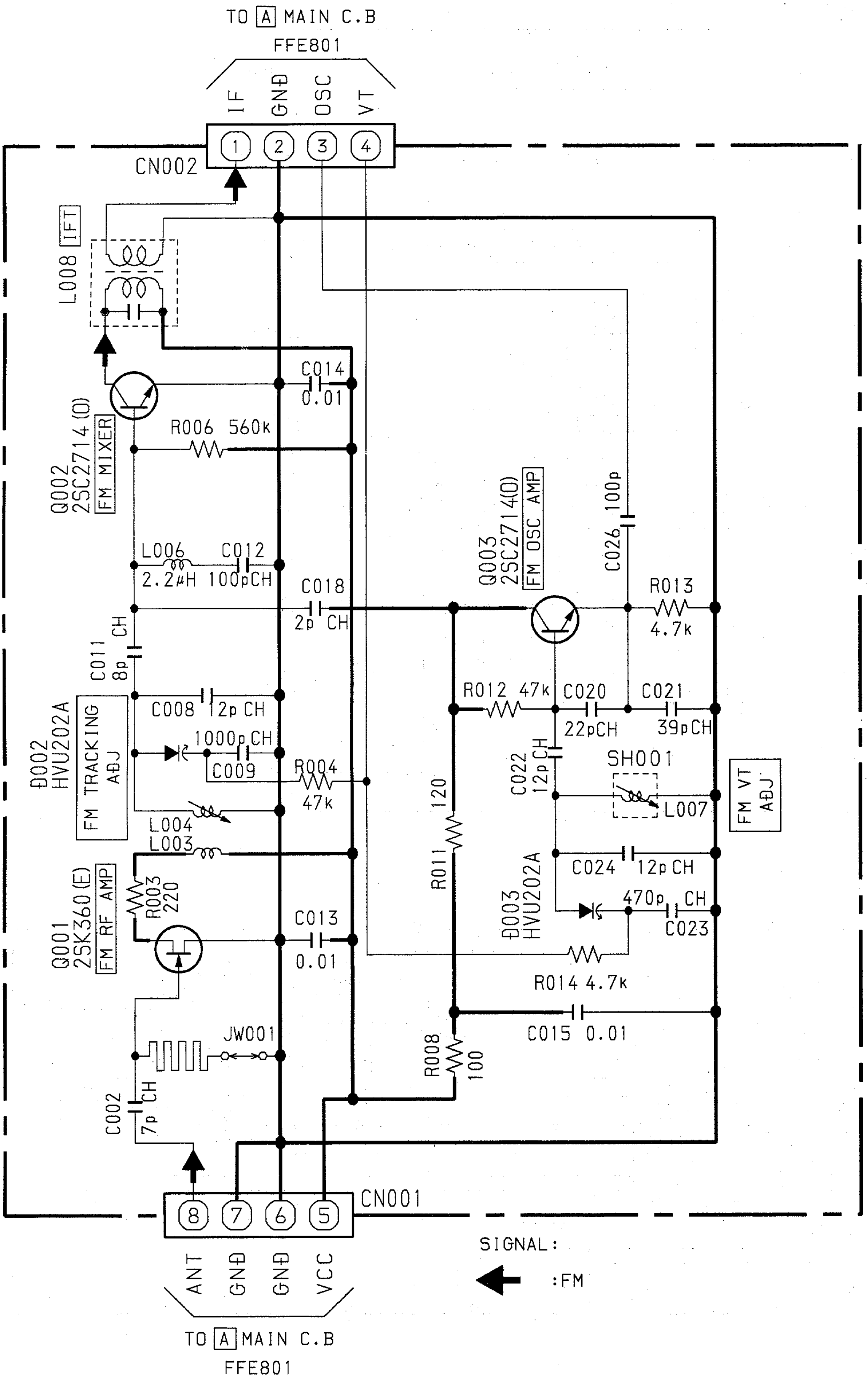
SCHEMATIC DIAGRAM – 5 (HE, HR : MAIN 2 / 2)


A MAIN C.B (2/2)
(HE, HR)
TO/FROM A MAIN C.B (1/2)
STEREO
PLL CE
DATA
CLK
TUNE/IFC
TM BASE
GND
IC721 LC72131 Ø
PLL
X721 4.5MHz
Q711 2SC4155 R5
TUNER SW
TU:9.1
OTHER:0
VCC
IC771 LA1837NL
DECODER
BUFFERS
DET OUT
L771 FM DET-2N
DC BALANCE ADJ
L772 PFMT-450A
IF ADJ
CF771 BFU450C
D773 1SS254
TP9 (RCH)
TP8 (LCH)
TUN-R
TUN-L
TP3
TP4
TP2
CLK
TP3, 4 DC BALANCE
TUN-L
TUN-R
VM
VCC
TU-ON
TO/FROM A MAIN C.B (1/2)
Q806, 807
FM BAND SW
Q806 RT1P 144C
Q807 RT1P144C
CF802 SFE10.7 MA5
CF801 SFE10.7 MA5
FM IF AMP
Q805 2SC2714 O
L832 2.2µH
FFE801
8ZA-1 FEUNN
IF OUT
GND
OSC OUT
VT (AIWA)
+B
GND
NC (GND)
ANT
J801
ANTENNA
FM 75Ω
SW
J940
MW LOOP
TP1 VT
Q951 RT1P141C
Q943 2SA1235F
Q944 2SC3052F
Q947 2SK543 (4/5)
AM RF AMP
Q945 2SC3052F
L981 (3/3) AM PACK3N
L981 (2/3) AM PACK3N
L981 (1/3) AM PACK3N
MW TRACKING ADJ
MW BAND SW
MW VT ADJ
L942 OSCSW-N (CDI)
Q946 CSD1306E
Q946, 948
SW BAND SW
SW VT ADJ
Q941 RT1P141C
Q942 2SA1235F
Q941, 942
SW BAND SW
REG
AM LO
AM RF
S-CURVE
AGC
L941 ANTSW (CDI)
SW TRACKING ADJ
Q948 CSD1306E
Q949 2SC3052F
Q950 CSD1306E
AGC
AGC SW
D941 1SS254
L943 1MH
L944 10MH
TC941 20P
SIGNAL:
:FM
:AM

SCHEMATIC DIAGRAM – 6 (EZ, K : MAIN 2 / 2)

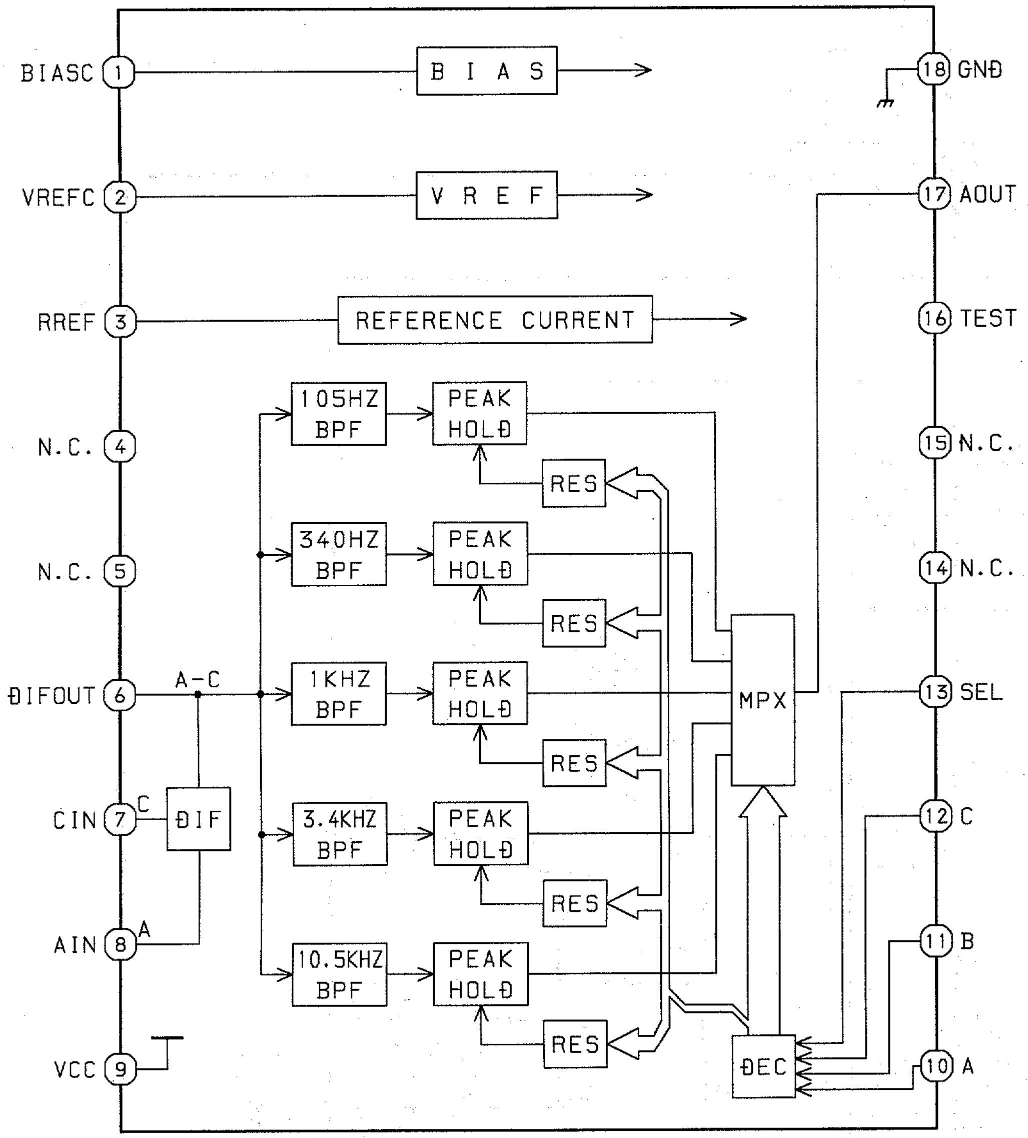

A MAIN C・B (2/2)
PLL CE
DATA
CLK
TUNE/IFC
TM BASE
GND
BEAT SW
STEREO
EZ ONLY
RDS CLK
RDS DATA
MS
RDS SIG/MS
GND
TO/FROM A MAIN C.B (1/2)
IC721 LC72131 D (Z)
PLL
X721 4.5MHz
Q711 2SC4115S TUNER SW
TU:9.1 OTHER:0
IC771 LA1837 (NL)
DECODER
BUFFERS
DET OUT
L771 FM DET-2N
DC BALANCE ADJ
L772 PCFA2M-450 (TOK)
L792 1POLE MPX (TOK)
L791 1POLE MPX (TOK)
TUN-L
TUN-R
VM
VCC
TU-ON
TO/FROM A MAIN C.B (1/2)
IC851 BU1920FS
RDS
Q851 2SC3052F
Q852 RT1N141C
Q853 2SC3052F
Q851, 852 SIG/MS SW
Q853 BUFFER AMP
X851 4.332MHz
CF802 MS2 GHY, R
Q805 2SC2714 O
FM IF AMP
CF801 SFE10.7 MS3G-A
L832 2.2μH
Q806 RT1P 144C
FM BAND SW
FFE801 K:6ZA-1 YFEE NC
EZ:6ZA1 FEENM
J801 ANTENNA
FM 75Ω
MW/LW Loop
Q951 RT1P141C
MW BAND SW
L981 (3/3) AM PACK2N
L981 (2/3) AM PACK2N
L981 (1/3) AM PACK2N
Q947 2SK543 (4/5)
MW RF AMP
D942 KDS184
D944 1SS254
MW TRACKING ADJ
LW VT ADJ
L942 OSCLW 856KHz (COI)
Q952 CS01306E
LW BAND SW
Q948 CS01306E
LW BAND SW
L941 ANTLW 252KHz (COI)
L941, TC942 LW TRACKING ADJ
REG
AM LO
AM RF
S-CURVE AGC
TP1
TP2 CLK
TP3
TP4
*TP3, 4 DC BALANCE
VT
SIGNAL:
:FM
:AM

SCHEMATIC DIAGRAM – 7 (HE, HR : TUNER FRONT END)


TO A MAIN C.B
FFE801
IF
GND
OSC
VT
1
2
3
4
CN002
L008 IFT
Q002
2SC2714 (O)
FM MIXER
C014
0.01
R006 560k
L006
2.2μH
C012
100pCH
C018
2p CH
C011
8p CH
C008 12p CH
1000p CH
C009
R004
47k
D002
HVU202A
FM TRACKING ADJ
L004
L003
R003
220
Q001
2SK360 (E)
FM RF AMP
C013
0.01
JW001
C002
7p CH
Q003
2SC2714 (O)
FM OSC AMP
C026 100p
R013
4.7k
R012 47k
C020
22pCH
C021
39pCH
C022
12p CH
SH001
L007
FM VT ADJ
120
R011
C024
12p CH
D003
HVU202A
470p CH
C023
R014 4.7k
C015 0.01
R008
100
CN001
8
7
6
5
ANT
GND
GND
VCC
TO A MAIN C.B
FFE801
SIGNAL:
:FM

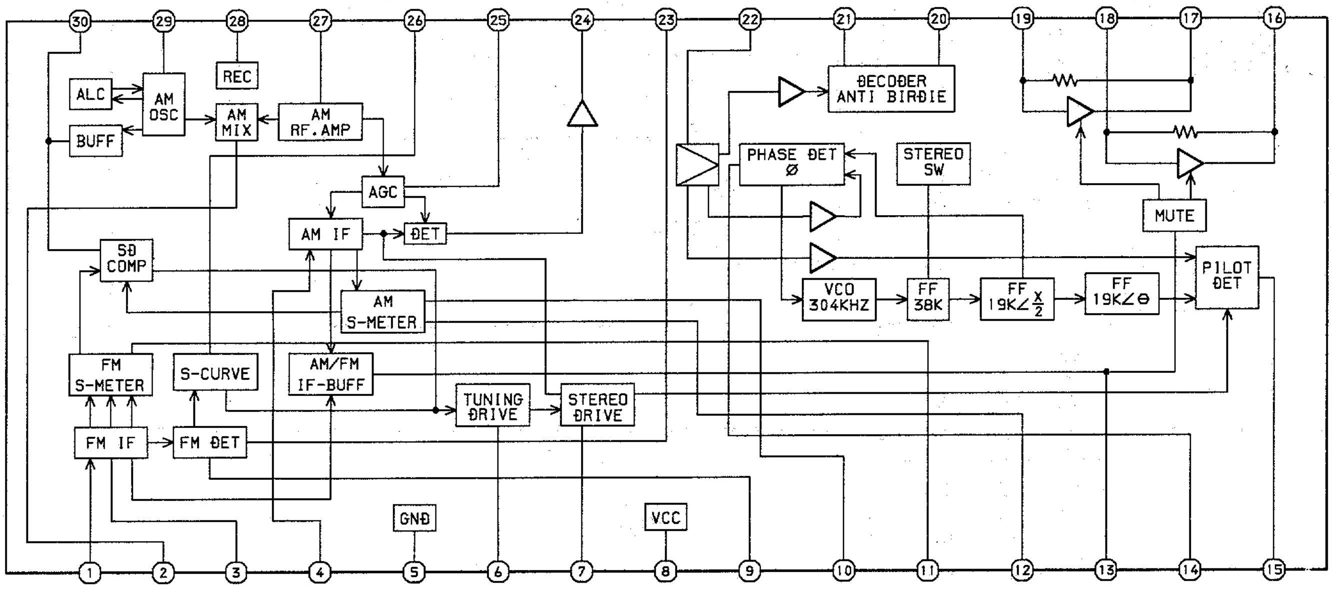
IC BLOCK DIAGRAM – 2

IC, BA3835S



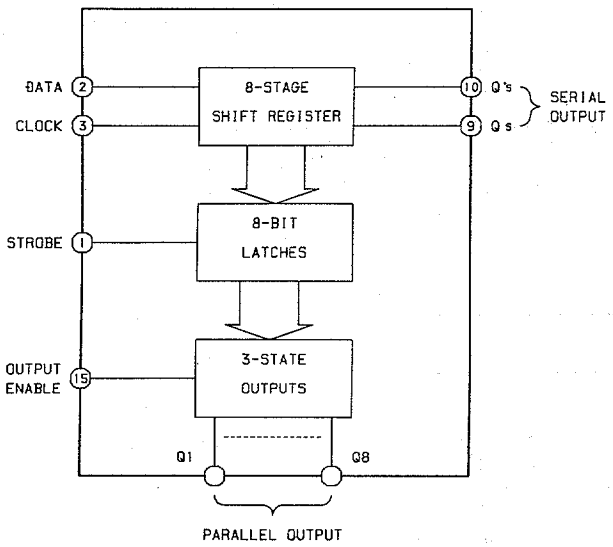
BIASC 1
VREFC 2
RREF 3
N.C. 4
N.C. 5
DIFOUT 6
CIN 7
AIN 8
VCC 9
18 GND
17 AOUT
16 TEST
15 N.C.
14 N.C.
13 SEL
12 C
11 B
10 A
BIAS
VREF
REFERENCE CURRENT
105HZ BPF
340HZ BPF
1KHZ BPF
3.4KHZ BPF
10.5KHZ BPF
PEAK HOLD
PEAK HOLD
PEAK HOLD
PEAK HOLD
PEAK HOLD
RES
RES
RES
RES
RES
MPX
DEC
DIF
A-C
C
A

IC, LA1837



ALC
BUFF
AM OSC
REC
AM MIX
AM RF.AMP
AGC
AM IF
DET
SD COMP
AM S-METER
FM S-METER
S-CURVE
AM/FM IF-BUFF
TUNING DRIVE
STEREO DRIVE
FM IF
FM DET
GND
VCC
DECODER ANTI BIRDIE
PHASE DET Ø
STEREO SW
VCO 304KHZ
FF 38K
FF 19K∠x/2
FF 19K∠θ
PILOT DET
MUTE
30
29
28
27
26
25
24
23
22
21
20
19
18
17
16
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15

IC, BU4094BCF


DATA
2
CLOCK
3
STROBE
1
OUTPUT ENABLE
15
8-STAGE SHIFT REGISTER
8-BIT LATCHES
3-STATE OUTPUTS
10
Q's
9
Qs
SERIAL OUTPUT
Q1
Q8
PARALLEL OUTPUT

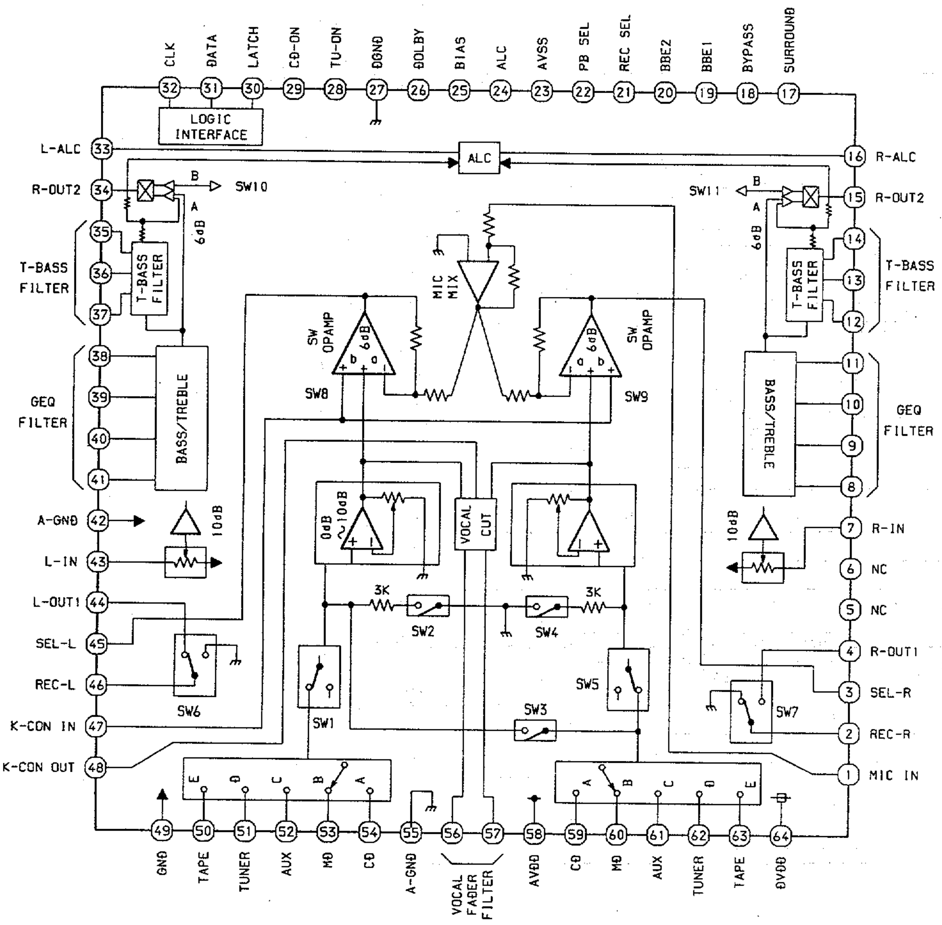
TRUTH TABLE

CLOCK	OUTPUT ENABLE	STROBE	DATA	PARALLEL OUTPUTS		SERIAL OUTPUTS	
				Q1	Qn	Qs	Q's
↑	L	X	X	Z	Z	Q7	NO Chg.
↓	L	X	X	Z	Z	No Chg.	Qs
↑	H	L	X	No Chg.	No Chg.	Q7	No Chg.
↑	H	H	L	L	Qn-1	Q7	No Chg.
↑	H	H	H	H	Qn-1	Q7	No Chg.
↓	H	X	X	No Chg.	No Chg.	No Chg.	Qs

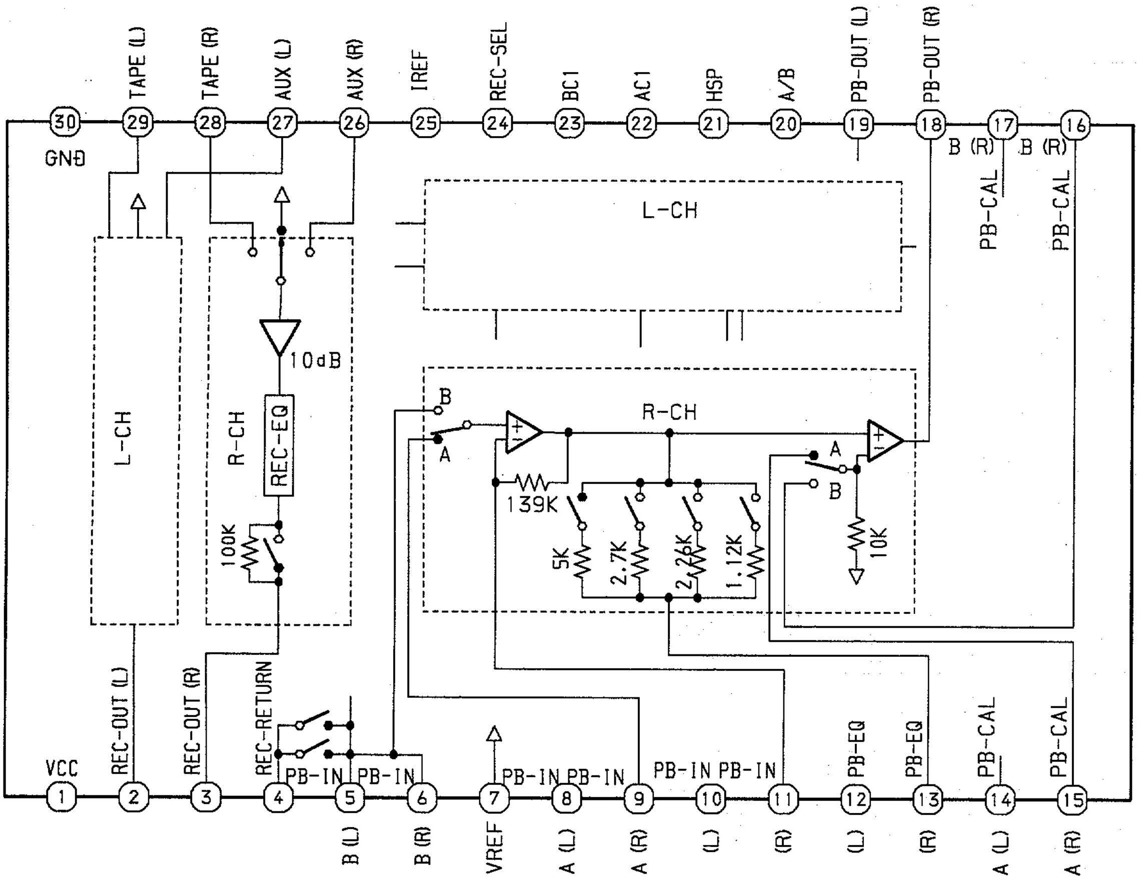
Z=High Impedance

X=Don't Care

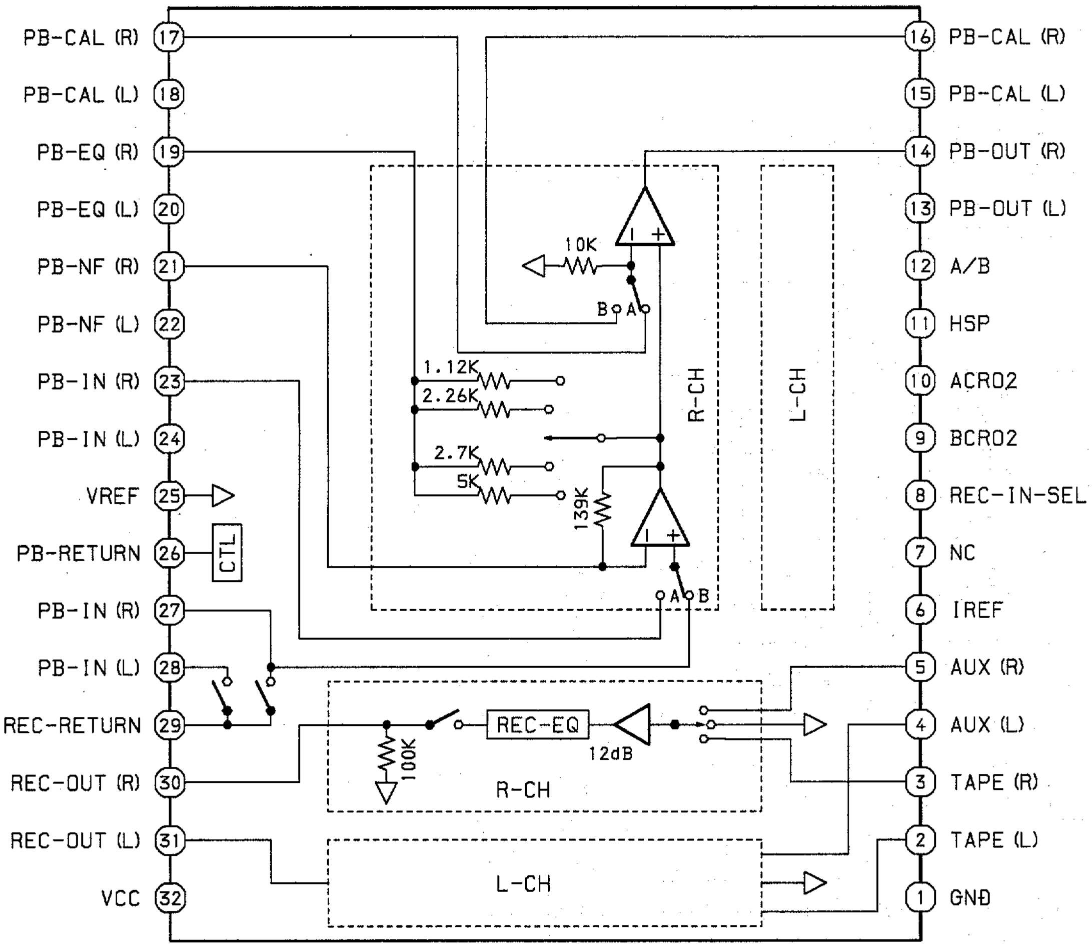
IC, M62445FP-601


CLK
DATA
LATCH
CD-ON
TU-ON
DGND
DOLBY
BIAS
ALC
AVSS
PB SEL
REC SEL
BBE2
BBE1
BYPASS
SURROUND
32
31
30
29
28
27
26
25
24
23
22
21
20
19
18
17
LOGIC INTERFACE
L-ALC
33
ALC
16
R-ALC
R-OUT2
34
B
SW10
A
6dB
SW11
15
R-OUT2
35
36
37
T-BASS FILTER
T-BASS FILTER
14
13
12
T-BASS FILTER
MIC MIX
SW OPAMP
6dB
SW8
SW9
38
39
40
41
GEQ FILTER
BASS/TREBLE
BASS/TREBLE
11
10
9
8
GEQ FILTER
A-GND
42
10dB
L-IN
43
0dB
~10dB
VOCAL CUT
10dB
7
R-IN
6
NC
5
NC
L-OUT1
44
3K
SW2
SW4
3K
4
R-OUT1
SEL-L
45
SW5
3
SEL-R
REC-L
46
SW6
SW1
SW3
SW7
2
REC-R
K-CON IN
47
K-CON OUT
48
1
MIC IN
E
D
C
B
A
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
GND
TAPE
TUNER
AUX
MD
CD
A-GND
VOCAL FADER FILTER
AVDD
CD
MD
AUX
TUNER
TAPE
DVDD

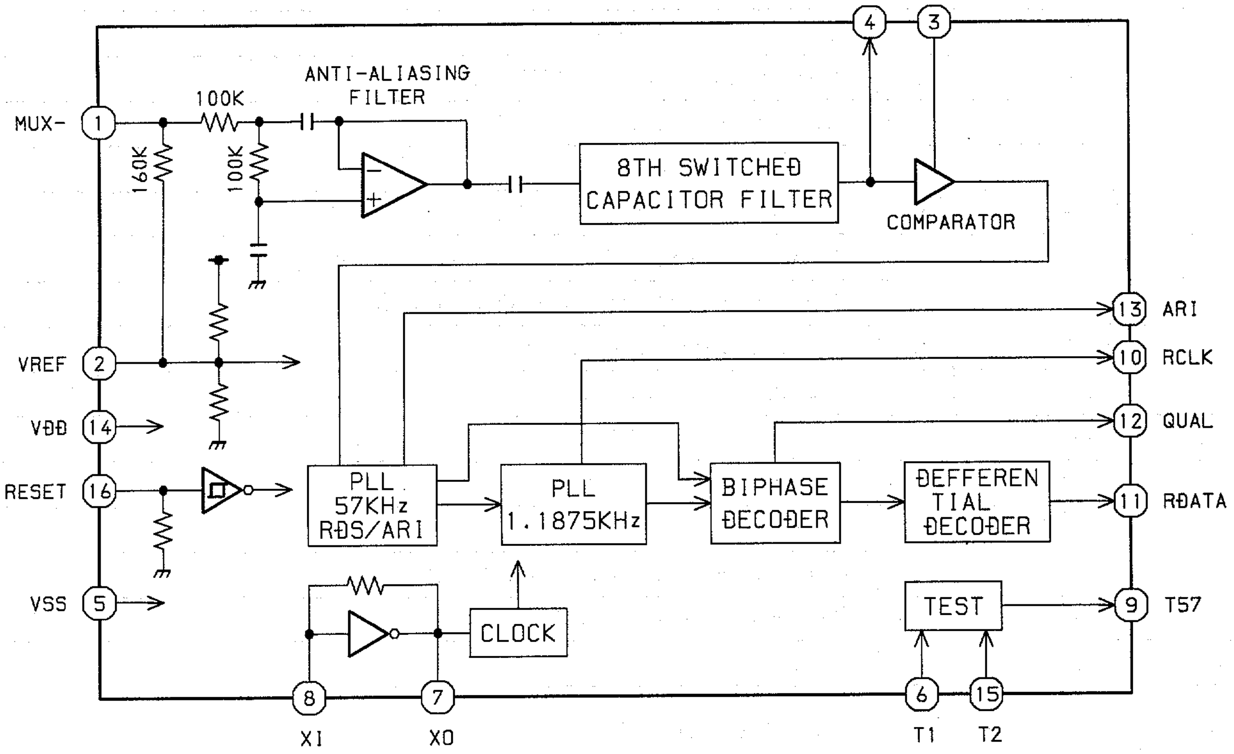
IC, HA12185NT


TAPE (L)
TAPE (R)
AUX (L)
AUX (R)
IREF
REC-SEL
BC1
AC1
HSP
A/B
PB-OUT (L)
PB-OUT (R)
30
29
28
27
26
25
24
23
22
21
20
19
18
17
16
GND
B (R)
B (R)
PB-CAL
PB-CAL
L-CH
L-CH
R-CH
REC-EQ
10dB
100K
R-CH
B
A
139K
5K
2.7K
2.26K
1.12K
A
B
10K
REC-OUT (L)
REC-OUT (R)
REC-RETURN
VCC
PB-IN
PB-IN
PB-IN
PB-IN
PB-IN
PB-IN
PB-EQ
PB-EQ
PB-CAL
PB-CAL
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
B (L)
B (R)
VREF
A (L)
A (R)
(L)
(R)
(L)
(R)
A (L)
A (R)

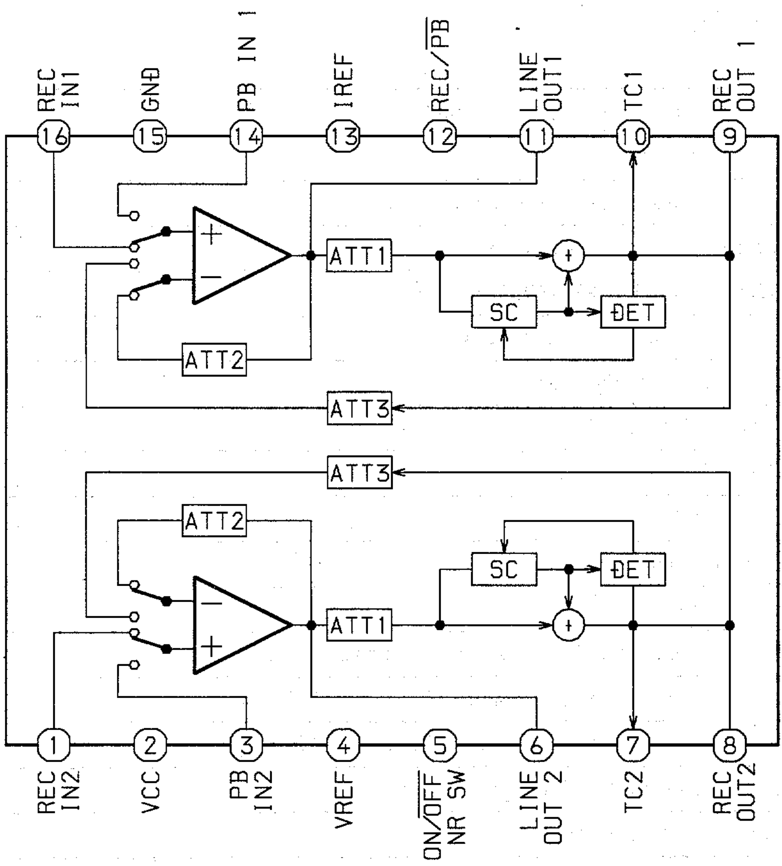
IC, BA7762AFS


PB-CAL (R) 17
PB-CAL (L) 18
PB-EQ (R) 19
PB-EQ (L) 20
PB-NF (R) 21
PB-NF (L) 22
PB-IN (R) 23
PB-IN (L) 24
VREF 25
PB-RETURN 26
CTL
PB-IN (R) 27
PB-IN (L) 28
REC-RETURN 29
REC-OUT (R) 30
REC-OUT (L) 31
VCC 32
16 PB-CAL (R)
15 PB-CAL (L)
14 PB-OUT (R)
13 PB-OUT (L)
12 A/B
11 HSP
10 ACRO2
9 BCRO2
8 REC-IN-SEL
7 NC
6 IREF
5 AUX (R)
4 AUX (L)
3 TAPE (R)
2 TAPE (L)
1 GND
10K
B
A
1.12K
2.26K
2.7K
5K
139K
A
B
R-CH
L-CH
REC-EQ
12dB
100K
R-CH
L-CH

IC, BU1920FS


MUX-
VREF
VDD
RESET
VSS
100K
160K
100K
ANTI-ALIASING FILTER
8TH SWITCHED CAPACITOR FILTER
COMPARATOR
PLL 57KHz RDS/ARI
PLL 1.1875KHz
BIPHASE DECODER
DEFFERENTIAL DECODER
CLOCK
TEST
ARI
RCLK
QUAL
RDATA
T57
XI
XO
T1
T2
1
2
14
16
5
4
3
13
10
12
11
9
8
7
6
15

IC, CXA1533P


REC IN1
GND
PB IN 1
IREF
REC/PB
LINE OUT1
TC1
REC OUT 1
16
15
14
13
12
11
10
9
ATT1
ATT2
ATT3
SC
DET
1
2
3
4
5
6
7
8
REC IN2
VCC
PB IN2
VREF
ON/OFF NR SW
LINE OUT 2
TC2
REC OUT2

IC DESCRIPTION

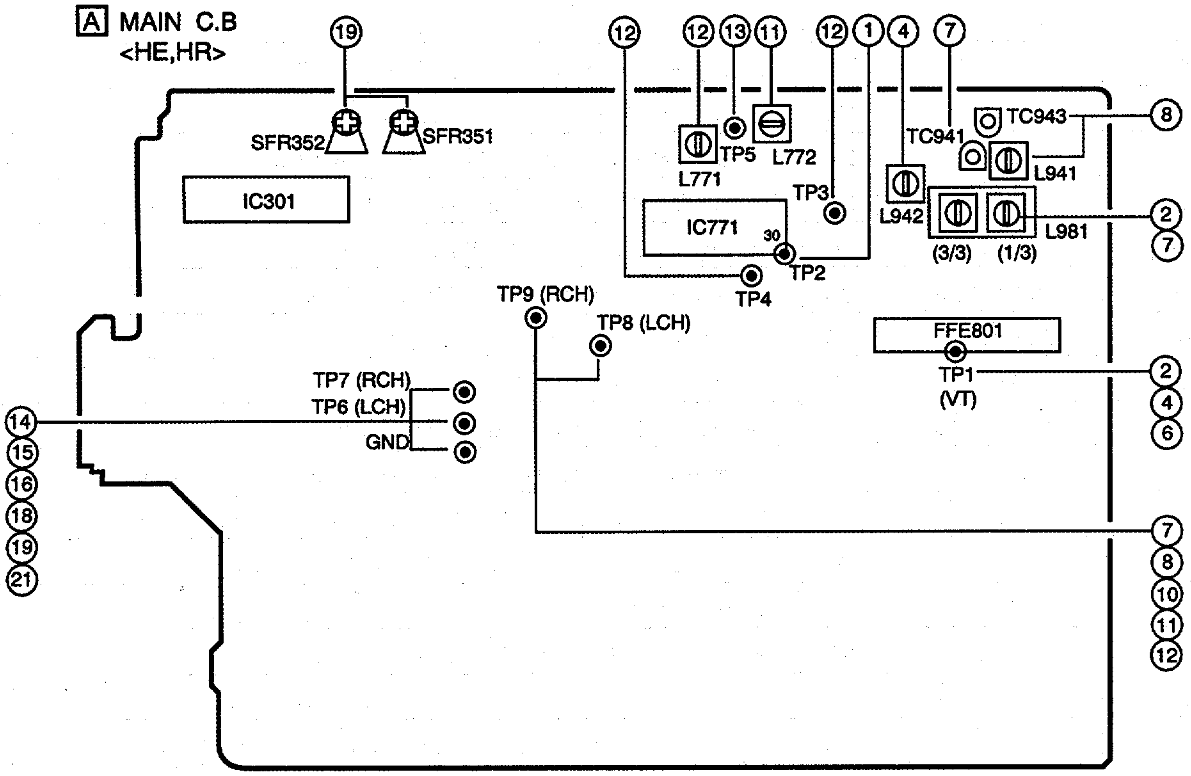
IC, LC866560W-5H26

Pin No.	Pin Name	I/O	Description
1	CLK	O	CLOCK output for MAIN,FRONT PWB.
2	DATA	O	DATA output for MAIN, FRONT PWB.
3	STB	O	Latch strobe output for MAIN PWB.
4	$\overline{\text{O-LED}}$	O	LED $\overline{\text{ON}}$/OFF output.
5	STB (SHIFT)	O	Latch strobe output for FRONT shift register.
6	$\overline{\text{CH}}$(GAME)	I	Channel control output for Sound IC. (Not connected)
7	STB (GAME)	O	Latch strobe output for Sound IC. (Not connected)
8	I-NAR (GAME)	I	Sound IC NAR input. (Not connected)
9	PLL-CE	O	PLL IC chip enable output.
10	O-DSC	O	Serial data output for PROLOGIC PWB. (Not connected)
11	$\overline{\text{I-MIC}}$	I	Microphone input for AUTO VF display.
12	$\overline{\text{RESET}}$	I	Reset input.
13	I-HP-$\overline{\text{MUTE}}$	I	Headphone input for MUTE by PROLOGIC.
14	I-DISH	I	CD turntable photo sensor A/D converter input.
15	VSS 1	–	GND.
16	CF 1	–	5.76MHz oscillator circuit.
17	CF 2	–	
18	VDD 1	–	Power supply input.
19	$\overline{\text{HOLD}}$	I	Power failure detection input. "H"normal operation,"L"main power cannot be turned on.
20	KEY-1	I	KEY input.(A/D)
21	KEY-2	I	
22	KEY-3	I	
23	I-CD SW	I	CD mechanical switch A/D converter input.
24	I-JOG	I	JOG dial A/D level input.
25	I-TU-SIG/$\overline{\text{MS}}$	I	Tuner signal and deck music sensor signal input.
26	I-SPEANA	I	A/D input for spectrum analyzer display.
27	I-WRQ/RDS-CLK	I	CD WRQ input. TUNER RDS CLOCK input.
28	I-TM-BASE	I	REFERENCE CLOCK input for timer watch.
29	I-$\overline{\text{RMC}}$	I	System remote control signal input.
30~41	G13~G2	O	FL GRID output G2~G13.
42, 43	P36, P35	O	FL SEGMENT output P35, P36.
44	G1	O	FL GRID output G1.
45	P34	O	FL SEGMENT output P34.
46	VDD3	–	Power supply input.
47	SPEANA-A/P33	O	Spectrum analyzer band switching output /FL segment P33 output.
48	SPEANA-B/P32	O	Spectrum analyzer band switching output /FL segment P32 output.
49	SPEANA-C/P31	O	Spectrum analyzer band switching output /FL segment P31 output.
50	P30/$\overline{\text{GAME}}$	I/O	FL segment P30 output / GAME input to diode.
51	VP	–	Power supply input for FL display.
52	P29/AM-ST	I /O	FL segment P29 output / AM-ST input to diode.
53	P28/LW	I/O	FL segment P28 output / LW input to diode.
54	P27/SW	I/O	FL segment P27 output / SW input to diode.

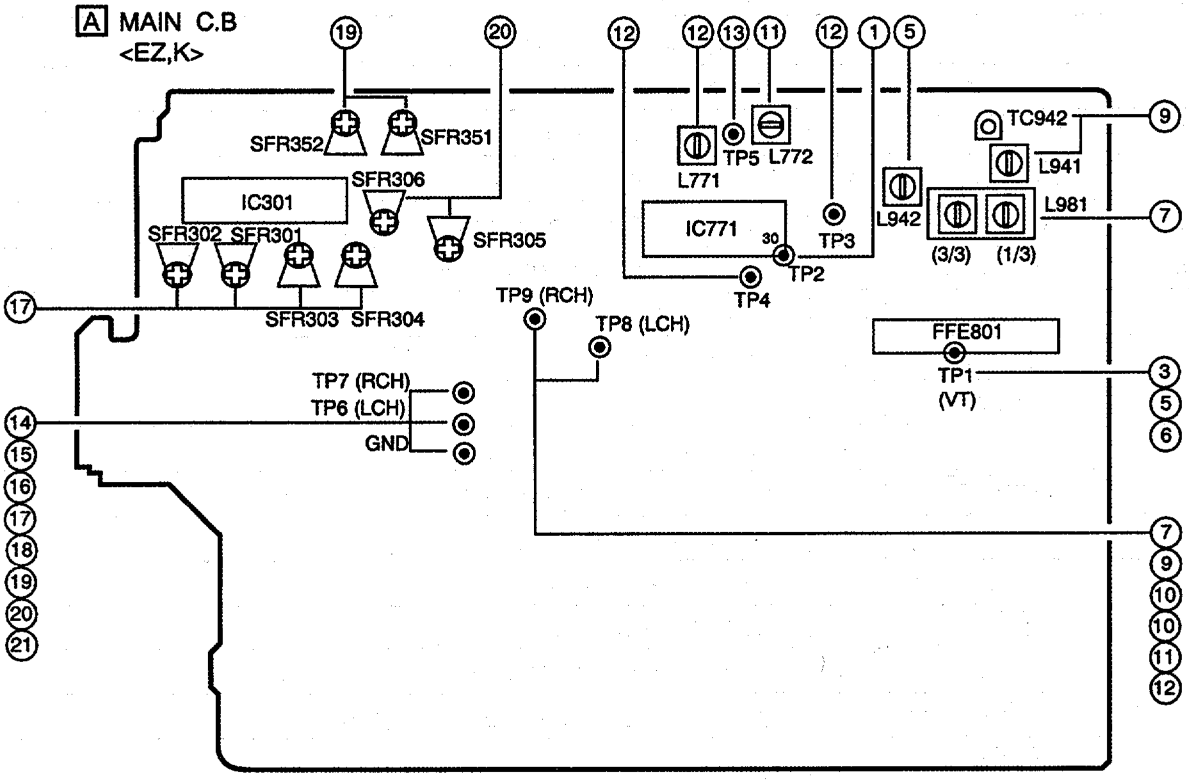
Pin No.	Pin Name	I/O	Description
55	P26/FM 1	I/O	FL segment P26 output / FM1 (OIRT) input to diode.
56	P25/RDS	I/O	FL segment P25 output / RDS input to diode.
57	P24/R+1	I/O	FL segment P24 output / RVS+1 way input to diode.
58	P23/$\overline{\text{DSP}}$	I/O	FL segment P23 output / $\overline{\text{DSP}}$ input to diode.
59	P22/D-SURR	I/O	FL segment P22 output / SURR input to diode.
60	P21/K-CON	I/O	FL segment P21 output / K-CON input to diode.
61	P20/$\overline{\text{DOLBY}}$	I/O	FL segment P20 output / DOLBY input to diode.
62	P19/5.1CH	I/O	FL segment P19 output / 5.1CH input to diode.
63	P18/AM10K	I/O	FL segment P18 output / AM 10kHz input to diode.
64	P17/$\overline{\text{CST 2}}$	I/O	FL segment P17 output / DECK2 cassette detect switch data input.
65	P16/$\overline{\text{REB}}$	I/O	FL segment P16 output / DECK2 side-B record OK switch data input.
66	P15/$\overline{\text{CAM 2}}$	I/O	FL segment P15 output / DECK2 CAM switch data input.
67	P14/AUTO 1	I/O	FL segment P14 output / DECK1 AUTO stop signal input.
68	P13/AUTO 2	I/O	FL segment P13 output / DECK2 AUTO stop signal input.
69	P12/$\overline{\text{CAM 1}}$	I/O	FL segment P12 output / DECK1 CAM switch data input.
70	P11/$\overline{\text{CST 1}}$	I/O	FL segment P11 output / DECK1 cassette detect switch data input.
71	P10/$\overline{\text{REA}}$	I/O	FL segment P10 output / DECK2 side A record OK switch data input.
72	VDD 4	–	Power supply input.
73 ~ 81	P9 ~ P1	O	FL segment P1 ~ P9 output.
82	O-KSCAN	O	Switch SCAN timing output.
83	$\overline{\text{TRAYCLOSE}}$	O	CD TRAY CLOSE data output.
84	$\overline{\text{TRAY-OPEN}}$	O	CD TRAY OPEN data output.
85	DISH-FWD	O	CD turntable forward rotation output.
86	DISH-RVS	O	CD turntable reverse rotation output.
87	O-DATA	O	CD data output.
88	O-CDCLK	O	CD clock output.
89	VSS2	-	GND.
90	VDD2	-	Power supply input.
91	$\overline{\text{O-POWER}}$	O	System power supply $\overline{\text{ON}}$/OFF output.
92	O-S-MUTE	O	System mute ON/$\overline{\text{OFF}}$ output.
93	$\overline{\text{SOL 1}}$	O	DECK 1 solenoid output.
94	$\overline{\text{SOL 2}}$	O	DECK 2 solenoid output.
95	O-MOTOR	O	DECK MOTOR ON/$\overline{\text{OFF}}$ output.
96	I-IFC/$\overline{\text{STEREO}}$/SUBQ	I	Tune IF count serial data input /CD SUBQ data input.
97	I-$\overline{\text{STEREO}}$/ DRF(SQCLK)	I/O	Tuner stereo detected input / CD SQ CLOCK output.
98	I-RDS-DATA/ O-CDCE	I/O	RDS data input / CD chip enable output.
99	RT-A	I	Rotary encoder A input.
100	RT-B	I	Rotary encoder B input.

ADJUSTMENT <TUNER / DECK>

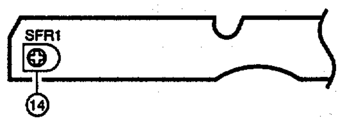
A MAIN C.B <HE,HR>


⑲
⑫
⑫ ⑬ ⑪
⑫ ① ④ ⑦
SFR352
SFR351
IC301
L771
TP5
L772
TC941
TC943
⑧
L941
TP3
L942
IC771
30
TP2
TP4
(3/3)
(1/3)
L981
②
⑦
TP9 (RCH)
TP8 (LCH)
FFE801
TP1
(VT)
②
④
⑥
TP7 (RCH)
TP6 (LCH)
GND
⑭
⑮
⑯
⑱
⑲
㉑
⑦
⑧
⑩
⑪
⑫

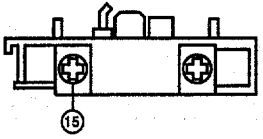
A MAIN C.B <EZ,K>


⑲
⑳
⑫
⑫ ⑬ ⑪
⑫ ① ⑤
SFR352
SFR351
TP5
L772
TC942
⑨
L941
L771
SFR306
IC301
SFR305
IC771
30
TP3
L942
L981
⑦
SFR302
SFR301
TP2
(3/3)
(1/3)
TP4
⑰
SFR303
SFR304
TP9 (RCH)
TP8 (LCH)
FFE801
TP1
(VT)
③
⑤
⑥
TP7 (RCH)
TP6 (LCH)
GND
⑭
⑮
⑯
⑰
⑱
⑲
⑳
㉑
⑦
⑨
⑩
⑩
⑪
⑫

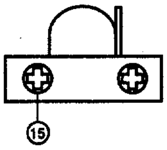
F DECK C.B



DECK-1 P,DECK-2 R/P/E HEAD (HE,HR,EZ)
DECK-1 P HEAD (K)



DECK-2 R / P HEAD (K)



< TUNER SECTION >

1. Clock Check
Settings : • Test point : TP2
Method : Set to AM 1602kHz and check that the test point is 2052kHz ± 45Hz.

2. MW VT Adjustment <HE,HR>
Settings : • Test point : TP1 (VT)
• Adjustment location : L981 (3/3)
Method : Set to MW 1710kHz and adjust L981 (3/3) so that the test point becomes 7.5V ± 0.05V. Then check that the test point is more than 0.3V (530kHz).

3. MW VT Check <EZ,K>
Settings : • Test point : TP1 (VT)
Method : Set to MW 1602kHz and check that the test point is less than 8.0V and more than 0.6V (531kHz).

4. SW VT Adjustment <HE,HR>
Settings : • Test point : TP1 (VT)
• Adjustment location : L942
Method : Set to SW 17.9MHz and adjust L942 so that the test point becomes 6.0V ± 0.05V. Then check that the test point is more than 0.3V (5.9MHz).

5. LW VT Adjustment <EZ,K>
Settings : • Test point : TP1 (VT)
• Adjustment location : L942
Method : Set to LW 144kHz and adjust L942 so that the test point is 1.3V ± 0.05V. Then check that the test point is less then 8.0V (290kHz).

6. FM VT Check
Settings : • Test point : TP1 (VT)
Method : Set to FM 87.5MHz, 108.0MHz and check that the test point is more than 0.5V (87.5MHz) and less than 8.0V (108.0MHz).

7a. MW Tracking Adjustment <HE,HR>
Settings : • Test point : TP8(Lch), TP9(Rch)
• Adjustment location :
L981 (1/3) 603kHz
TC941 .... 1404kHz
Method : Set up TC941 to center before adjustment, the level at 603kHz is adjust to maxmum by L981 (1/3). Then the level at 1404kHz is adjust to maximum by TC941.

7b. MW Tracking Adjustment <EZ,K>
Settings : • Test point : TP8(Lch), TP9(Rch)
• Adjustment location :
L981(1/3) 999kHz
Method : Set to AM 999kHz and adjust L981(1/3)to MAX.

8. SW Tracking Adjustment <HE,HR>
Settings : • Test point : TP8(Lch), TP9(Rch)
• Adjustment location :
L941 .... 5.9MHz
TC943 .... 17.9MHz
Method : Set up TC943 to center before adjustment. The level at 5.9MHz is adjust to maximum by L941. Then the level at 17.9MHz is adjust to maximum by TC943.

9. LW Tracking Adjustment <EZ,K>
Settings : • Test point : TP8(Lch), TP9(Rch)
• Adjustment location :
L941 ....144kHz
TC942 .... 290kHz
Method : Set up TC942 to center before adjustment. The level at 144kHz is adjust to maximum by L941. Then the level at 290kHz is adjust to maximum by TC942.

10. FM Tracking Check
Settings : • Test point : TP8(Lch), TP9(Rch)
Method : Set to FM 98.0MHz and check that the test point is less than 9dB (HE,HR), less than 10dB (EZ,K).

11. AM(MW) IF Adjustment
Settings : • Test point : TP8(Lch), TP9(Rch)
• Adjustment location :
L772 .... 450kHz

12. DC Balance / Mono Distortion Adjustment
Settings : • Test point : TP3, TP4 (DC Balance)
: TP8(Lch), TP9(Rch) (Distortion)
• Adjustment location : L771
• Input level : 54dB
Method : Set to FM 98.0MHz and adjust L771 so that the voltage between TP3 and TP4 becomes 0V ± 0.04V.
Next, check that the distortion is less than 1.3%.

13. Auto Stop Level Check

MW
• Input level : 52dB
• Test point : TP5
Method : Check auto stop at MW 999kHz and the level is 52 +10/-15dB.

FM
• Input level : 25dB
• Test point : TP5
Method : Check auto stop at FM 98.0MHz and the level is 25 dB ± 10 dB.

< DECK SECTION >

14. Tape Speed Adjustment
Settings : • Test tape : TTA-100
• Test point : TP6(Lch), TP7(Rch)
• Adjustment location : SFR1
Method : Play back the test tape and adjust SFR1 so that the frequency counter reads 3000Hz ± 5Hz.

15. Head Azimuth Adjustment
Settings : • Test tape : TTA-330
• Test point : TP6(Lch), TP7(Rch)
• Adjustment location : Head azimuth adjustment screw
Method : Play back (FWD) the 8kHz signal of the test tape and adjust screw so that the output becomes maximum.
Next, perform on REV PLAY mode.

16. PB Frequency Response Check (DECK 1, DECK 2)
Settings : • Test tape : TTA-330
• Test point :TP6(Lch), TP7(Rch)
Method : Play back the 315Hz and 8kHz signals of the test tape and check that the output ratio of the 8kHz signal with respect to that of the 315Hz signal is within 5dB.

17. PB Sensitivity Adjustment (DECK 1, DECK 2) <EZ>

Settings : • Test tape : TTA–200
- Test point : TP6(Lch), TP7(Rch)
- Adjustment location : SFR301 (DECK 1, Lch)
  SFR302 (DECK 1, Rch)
  SFR303 (DECK 2, Lch)
  SFR304 (DECK 2, Rch)

Method : Play back the test tape and adjust SFRs so that the output level of the test point becomes 245mV ± 10mV.

18. PB Sensitivity Check (DECK 1, DECK 2) <HE,HR,K>

Settings : • Test tape : TTA–200
- Test point : TP6(Lch), TP7(Rch)

Method : Play back the test tape and check that the output level of the test point is 120mV± 3dB (±10mV).

19. REC/PB Frequency Response Adjustment

Settings : • Test tape : TTA–602
- Test point : TP6(Lch), TP7(Rch)
- Input signal : 1kHz / 10kHz (LINE IN)
- Adjustment location : SFR351 (Lch)
  SFR352 (Rch)

Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at the TP6, TP7 becomes -28dBV (HE,HR,K), -36.5dBV (EZ). Record and play back the 1kHz and 10kHz signals and adjust SFRs so that the output of the 10kHz signals becomes 0dB ± 0.5dB with respect to that of the 1kHz signal.

20. REC/PB Sensitivity Adjustment <EZ>

Settings : • Test tape : TTA–602
- Test point : TP6(Lch), TP7(Rch)
- Input signal : 1kHz (LINE IN)
- Adjustment location : SFR305 (Lch)
  SFR306 (Rch)

Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at TP8, TP9 becomes 0VU (-16.5 dBV). Record and play back the 1kHz signals and adjust SFRs so that the output becomes 0dB ± 0.5dB with respect to that of the 1kHz signal.

21. REC/PB Sensitivity Check <HE,HR,K>

Settings : • Test tape : TTA–602
- Test point : TP6(Lch), TP7(Rch)
- Input signal : 1kHz (LINE IN)

Method : Apply a 1kHz signal and REC mode. Then adjust OSC attenuator so that the output level at TP6, TP7 becomes 0VU(-8dBV). Record and play back the 1kHz signals and check that the output is 0 ± 3.5dB.

PRACTICAL SERVICE FIGURE

<TUNER SECTION>

<FM SECTION>
IHF Sensitivity : (THD 3%) Less than 10 / 9 / 9dB (HE,HR)
[at 87.5 / 98.0 / 108.0MHz (HE,HR)]
Less than 11 / 10 / 10dB (EZ,K)
[at 87.5 / 98.0 / 108.0MHz (EZ,K)]
S/N 50dB Quieting sensitivity :
Less than 35dB (HE,HR)
[at 98.0MHz (HE,HR)]
Less than 38dB (EZ,K)
[at 98.0MHz (EZ,K)]
Signal to noise ratio : Mono : More than 72dB
Stereo : More than 64dB [at 98.0MHz]
Distortion : Mono : Less than 1.2%
Stereo : Less than 2.0% [at 98.0MHz]
Auto stop level : 25dB ± 10dB [at 98.0MHz]
Stereo separation : HE,HR : More than 30dB [at 98.0MHz]
EZ,K : More than 12dB [at 98.0MHz]
Intermediate frequency : 10.7MHz

<MW SECTION>
Sensitivity : Less than 60dB [at 603kHz]
Less than 58dB [at 999kHz]
Less than 58dB [at 1404kHz]
Signal to noise ratio : More than 36dB [at 999kHz]
Distortion : Less than 1.5% [at 999kHz]
Auto stop level : 50dB +10/-15dB [at 999kHz]
Intermediate frequency : 450kHz

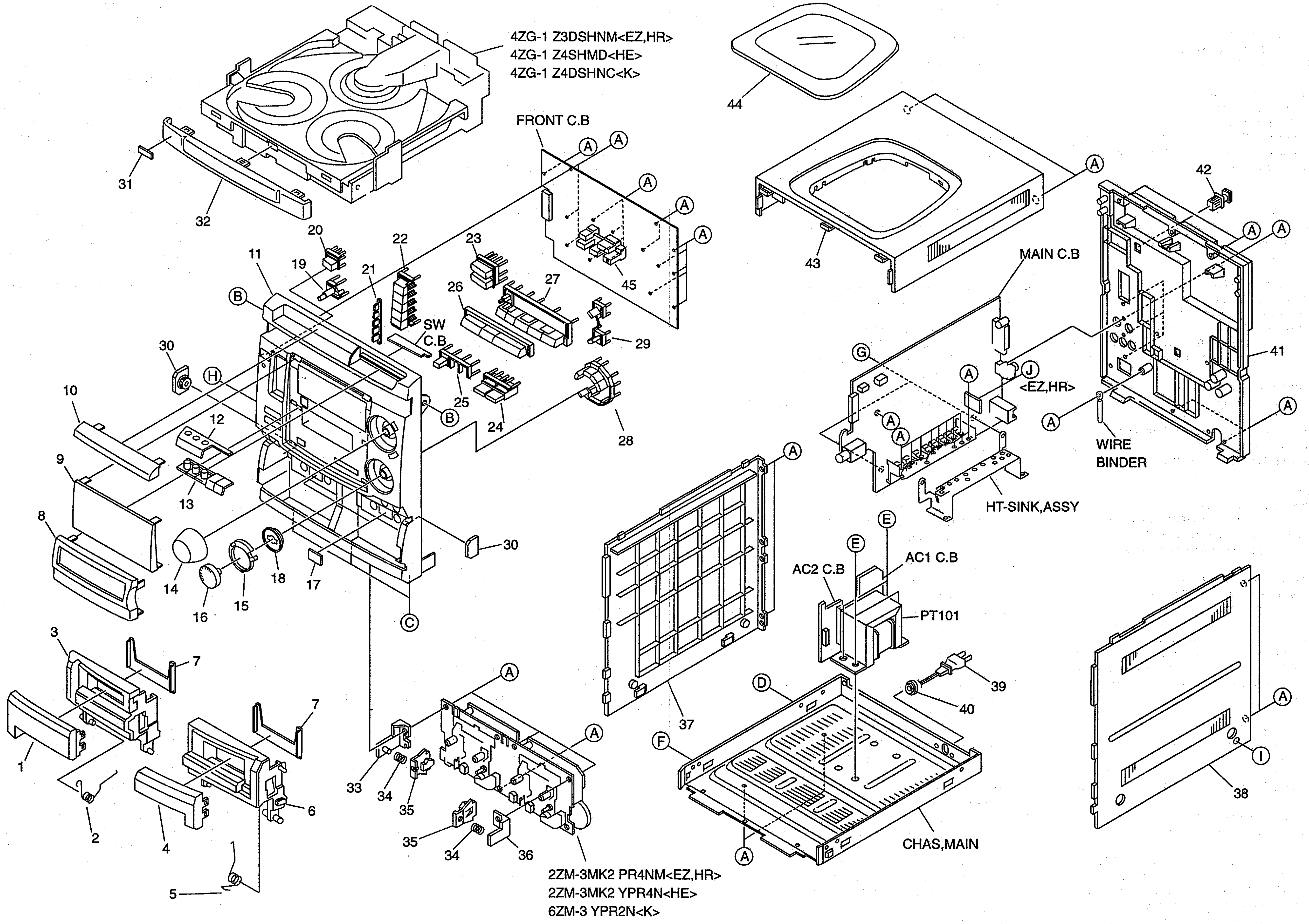
<LW SECTION> (EZ,K)
Sensitivity : Less than 70dB [at 144kHz]
Less than 68dB at 198kHz]
Less than 66dB [at 290kHz]
Intermediate frequency : 450kHz

<SW SECTION> (HE,HR)
Sensitivity : Less than 42dB [at 5.9MHz]
Less than 38dB [at 12.0 MHz]
Less than 38dB [at 17.9MHz]
Signal to noise ratio : More than 36dB [at 12.0MHz]
Distortion : Less than 2.0% [at 12.0MHz]
Intermediate frequency : 450kHz

<DECK SECTION>

Tape speed : 3000Hz ± 45Hz
Wow & flutter : Less than 0.21%(HE,HR,EZ), 0.25% (K) (W.R.M.S)
Take-up torque : 30 ~ 55g-cm (FWD, REV)
F.F & REW torque : 75 ~ 180g-cm
Back tension : 2 ~ 7g-cm (FWD, REV)
PB output level : 300mV± 3dB (HE,HR,K),
300mV± 1dB (EZ) (SP OUT 2V)
REC/PB output level : 0 ± 3.5dB (HE,HR,K), 0 ± 1dB (EZ) (SP OUT 2V,NORM)
Distortion (REC/PB) : Less than 2.0% (NORM)
Noise level (PB) : Less than 2.0mV (NORM, SP OUT 2V)
Noise level (REC/PB) : Less than 3.0mV (NORM, SP OUT 2V)
Erasing ratio : More than 60dB (at 125Hz, +10VU)
Test tape : TTA–602 (NORMAL)

MECHANICAL EXPLODED VIEW 1 / 1

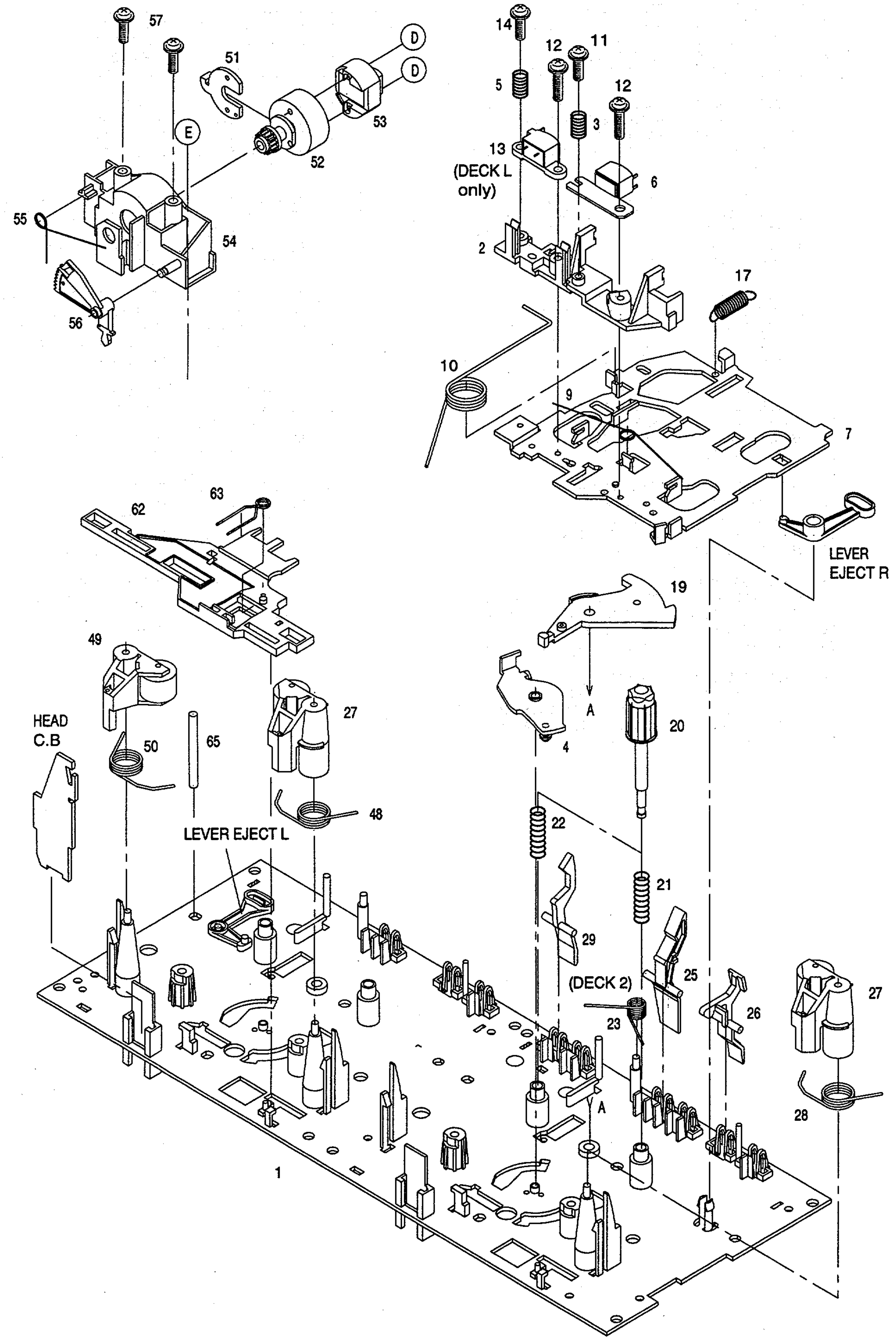

4ZG-1 Z3DSHNM<EZ,HR>
4ZG-1 Z4SHMD<HE>
4ZG-1 Z4DSHNC<K>
31
32
FRONT C.B
A
45
20
19
22
23
27
26
21
11
B
SW
C.B
29
30
H
25
10
B
24
28
12
9
13
8
30
14
16
15
18
17
C
3
7
1
2
4
7
6
5
A
A
33
34
35
35
34
36
2ZM-3MK2 PR4NM<EZ,HR>
2ZM-3MK2 YPR4N<HE>
6ZM-3 YPR2N<K>
44
43
42
MAIN C.B
G
J
<EZ,HR>
41
WIRE
BINDER
HT-SINK,ASSY
37
E
E
AC2 C.B
AC1 C.B
PT101
39
40
D
F
CHAS,MAIN
I
38

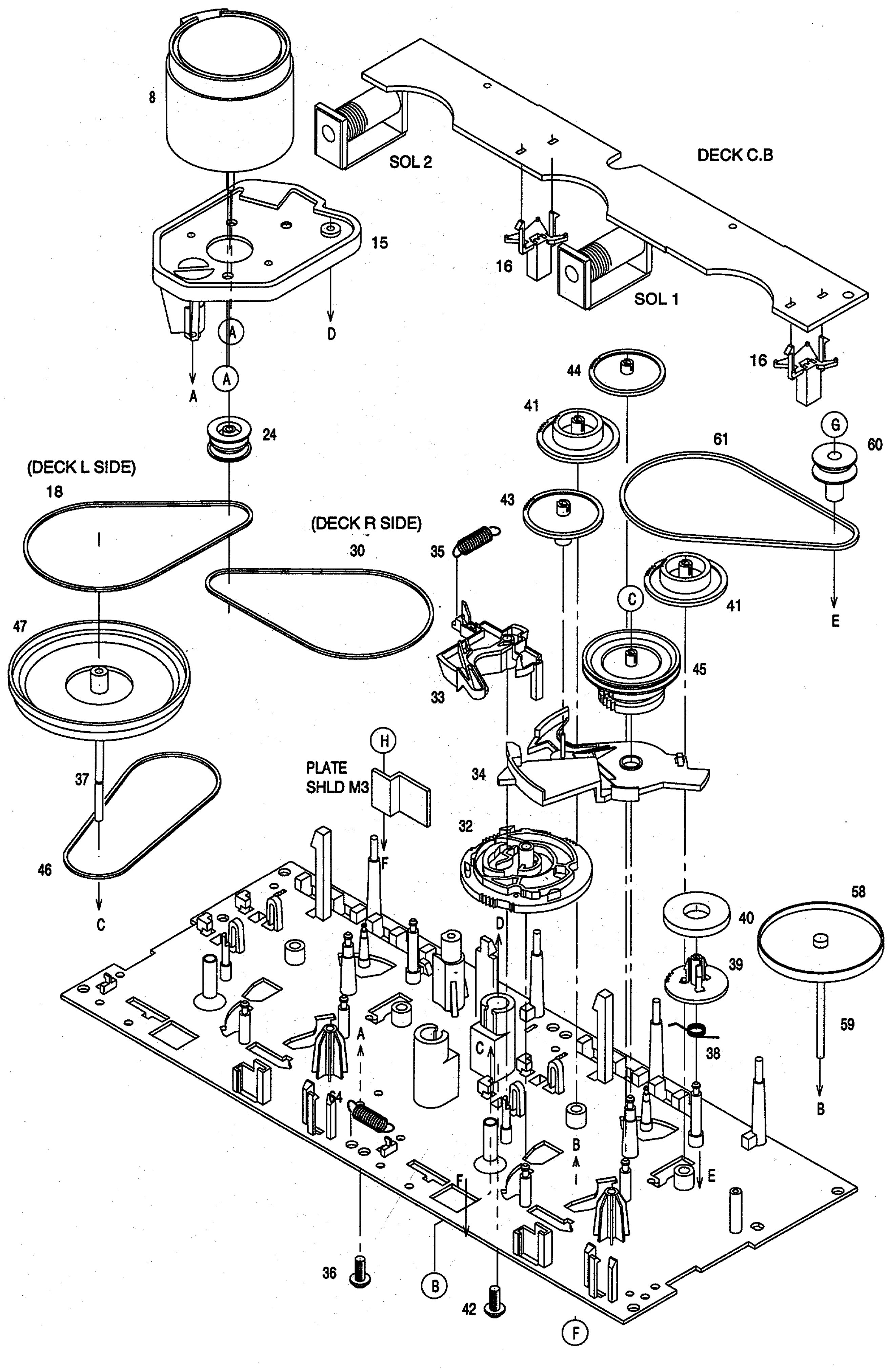
MECHANICAL PARTS LIST 1 / 1

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	87-NBG-009-010		WINDOW,CASS 1
2	82-NF5-218-010		SPR-T,EJECT 1 (SIN)
3	88-NF7-003-010		BOX,CASS 1 U
4	87-NBG-010-010		WINDOW,CASS 2
5	82-NF5-219-010		SPR-T,EJECT 2 (SIN)
6	88-NF7-049-010		BOX,CASS 2 H<EXCEPT 505K>
6	88-NF7-004-010		BOX,CASS 2 U<505K>
7	86-NF6-061-010		REFLECTOR,CASS
8	88-NF7-037-010		PANEL,CONT E<505EZ,506EZ>
8	88-NF7-030-010		PANEL,CONT U<505K>
8	88-NF7-047-010		PANEL,CONT U1<505HR>
9	88-NF7-021-010		WINDOW,DISP<505K>
9	88-NF7-039-010		WINDOW,DISP E<505EZ,506EZ>
9	88-NF7-038-010		WINDOW,DISP H<505HR>
10	87-NBG-008-010		WINDOW,CD
11	88-NF7-050-010		CABI,FR E 506<506EZ>
11	88-NF7-060-010		CABI,FR E505<505EZ>
11	88-NF7-046-010		CABI,FR H 505<505HR>
11	88-NF7-054-110		CABI,FR K<505K>
12	87-NBG-006-010		PANEL,CD
13	88-NF7-062-010		KEY,CD
14	87-NBG-011-010		KNOB,RTRY VOL
15	88-NF7-007-010		PANEL,JOG
16	88-NF7-006-310		KNOB,RTRY JOG
17	81-532-080-010		LABEL, CASS. COMPT
18	88-NF7-015-010		REFLECTOR,JOG
19	88-NF7-040-110		KEY,DEMO S
20	87-NBG-015-010		KEY,POWER
21	87-NBG-023-010		REFLECTOR,FUN
22	88-NF7-022-110		KEY,FUN
23	88-NF7-008-010		KEY,BBE
24	88-NF7-033-010		KEY,TIMER E<505EZ,506EZ>
24	88-NF7-027-010		KEY,TIMER U<505K,505HR>
25	88-NF7-013-010		KEY,EDIT<505EZ,506EZ>
25	88-NF7-032-010		KEY,EDIT H<505HR>
25	88-NF7-025-010		KEY,EDIT U<505K>
26	88-NF7-028-110		KEY,ASSY OPE U
27	88-NF7-034-110		KEY,ASSY DEMO H<EXCEPT 505K>
27	88-NF7-029-110		KEY,ASSY DEMO U<505K>
28	88-NF7-014-110		KEY,DSP
29	87-NBG-019-010		KEY,ECHO
30	87-NF8-220-010		DMPR,150
31	82-NE6-067-010		BADGE,AIWA 30N
32	88-NF7-005-010		PANEL,TRAY
33	87-NF4-216-010		HLDR,LOCK 1
34	86-NF9-224-010		SPR-C,LOCK
35	82-NF5-229-010		PLATE,LOCK
36	87-NF4-217-010		HLDR,LOCK 2
37	87-NB8-005-010		PANEL,LEFT
38	88-NF8-047-010		PANEL,RIGHT 2
⚠ 39	87-A80-023-010		AC CORD,ASSY K 3P W<505K>
⚠ 39	87-050-079-010		AC-CORD ASSY,E<EXCEPT 505K>
40	87-085-185-010		BUSHING, AC CORD (E)
41	88-NF7-076-010		CABI,505 EZSTNM<505EZ>
41	88-NF7-070-010		CABI,REAR 506 EZSTNM<506EZ>
41	88-NF7-042-010		CABI,REAR HRJSTNM<505HR>
41	88-NF7-066-010		CABI,REAR 505 HEST<505HE>
41	88-NF7-059-010		CABI,REAR HEJSTNM<505HEJ>
41	88-NF7-044-010		CABI,REAR KSTNE<505K>
42	84-ZG1-245-210		CAP,OPTICAL
43	87-NF6-021-010		PANEL,TOP
44	86-NF6-007-010		WINDOW,TOP
45	88-NF7-201-010		GUIDE,OPE
A	87-067-703-010		TAPPING SCREW, BVT2+3-10
B	87-721-097-410		QT2+3-12 GLD
C	87-067-688-010		BVTT+3-6
D	87-721-096-410		QT2+3-10 GLD
E	87-078-019-010		S-SCREW,IT+4-6
F	87-591-094-410		TAPPING SCREW, QIT+3-6
G	87-NF4-224-010		S-SCREW,IT3B+3-8 CU
H	87-723-096-410		QT2+3-10W/O SLOT BL
I	87-B10-091-010		UTT2+3-10 W/O BLK
J	87-067-579-010		TAPPING SCREW, BVT2+3-8<EXCEPT 505K>

TAPE MECHANISM EXPLODED VIEW 1 / 1 <6ZM-3 YPR2N>


57
D
D
51
53
E
52
55
54
56
14
12
11
5
12
3
13
(DECK L
only)
6
2
17
10
9
7
63
62
LEVER
EJECT R
19
49
27
HEAD
C.B
50
65
A
20
4
48
22
LEVER EJECT L
21
29
(DECK 2)
25
27
26
23
A
28
1

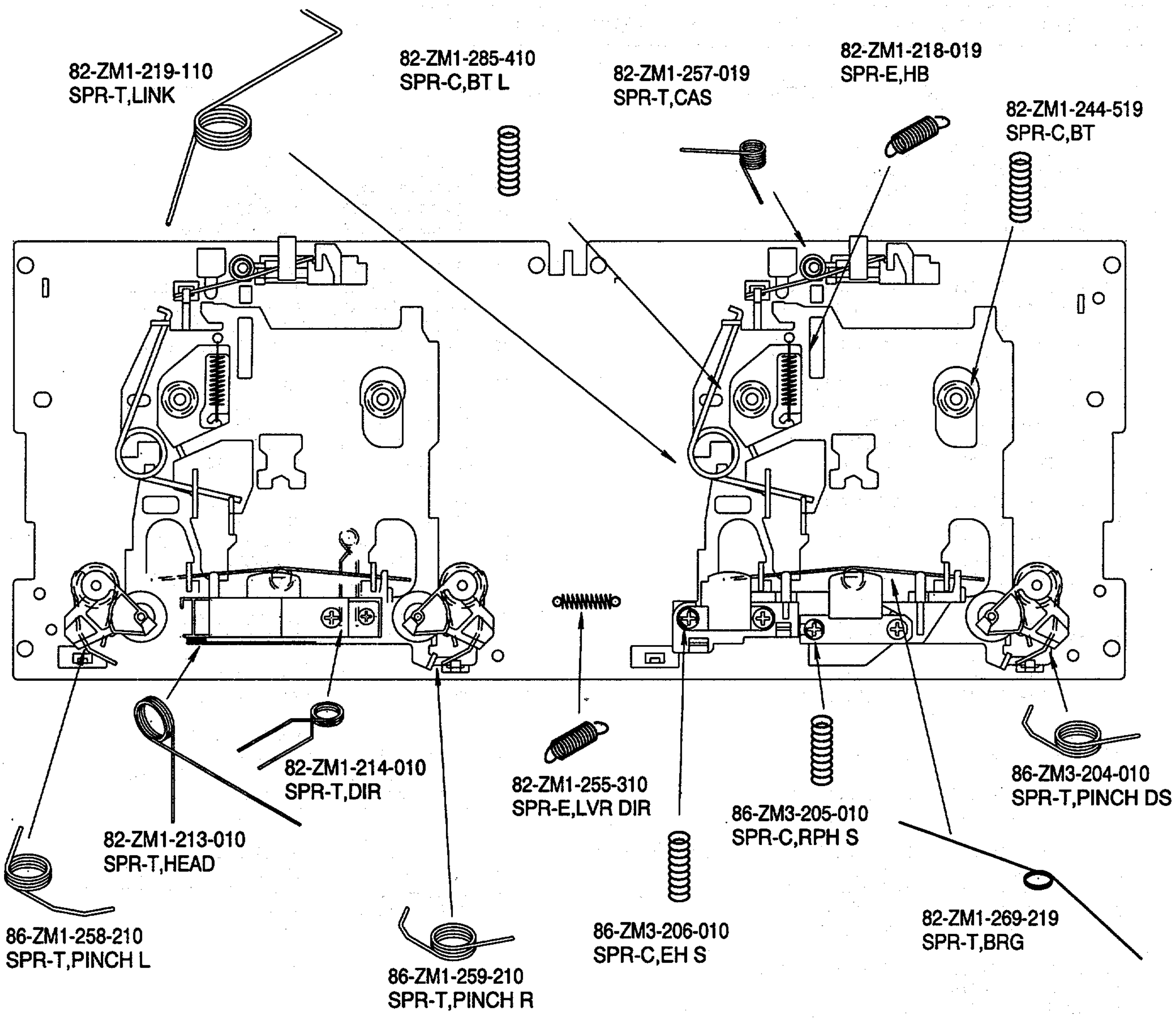

8
SOL 2
DECK C.B
15
16
SOL 1
Ⓐ
D
Ⓐ
A
16
44
41
24
Ⓖ
60
61
(DECK L SIDE)
18
43
(DECK R SIDE)
30
35
Ⓒ
41
E
47
45
33
Ⓗ
PLATE
SHLD M3
34
37
32
46
C
58
D
40
39
59
A
C
38
64
B
B
F
E
36
Ⓑ
42
Ⓕ

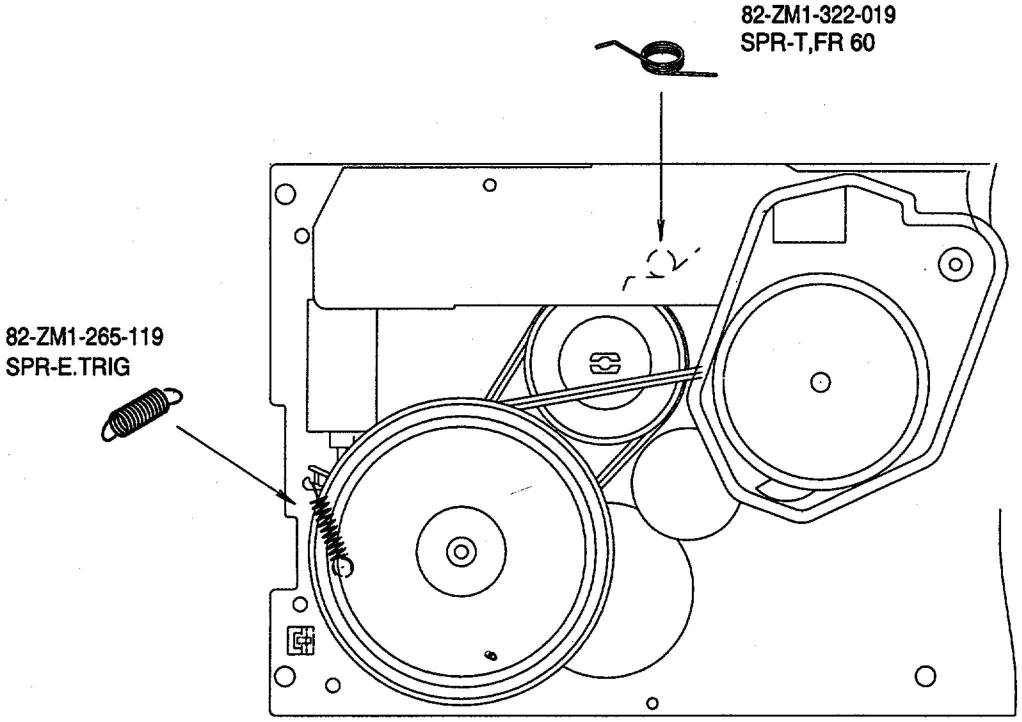
TAPE MECHANISM PARTS LIST 1 / 1 <6ZM-3 YPR2N>

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

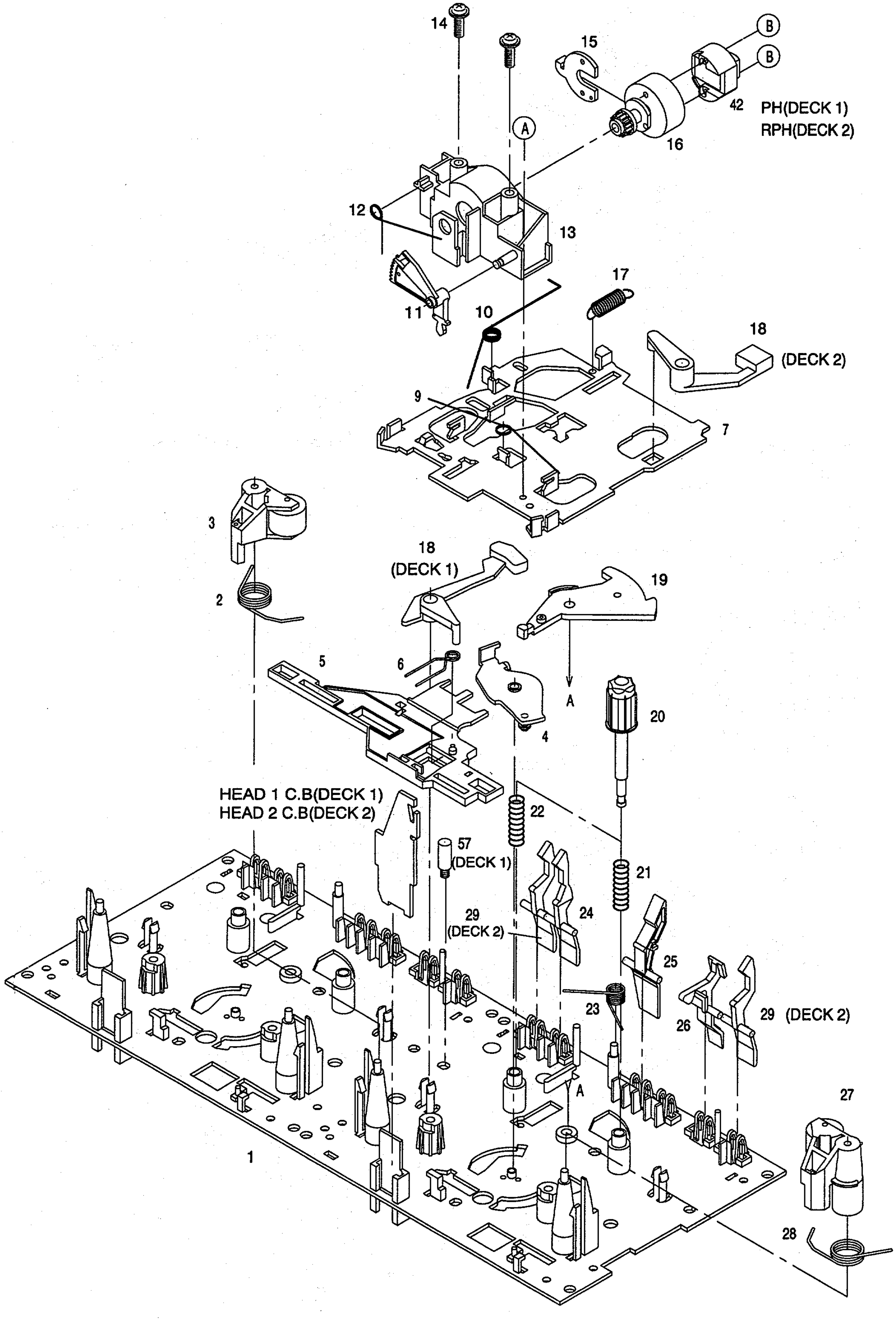
REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	86-ZM3-215-010		CHAS ASSY,RS
2	86-ZM3-202-010		BASE,HEAD S
3	86-ZM3-205-010		SPR-C,RPH S
4	82-ZM1-333-210		PLATE,LINK 2
5	86-ZM3-206-010		SPR-C,EH S
6	87-A90-403-019		HEAD,RPH MS15R
7	86-ZM3-201-010		CHAS,HEAD S(DECK L)
7	82-ZM3-206-910		CHAS,HEAD(DECK R)
8	87-045-347-019		MOT,SHU2L 70(M1)
9	82-ZM1-269-219		SPR-T,BRG
10	82-ZM1-219-110		SPR-T,LINK
11	86-ZM3-209-010		S-SCREW,ASIMUTHS
12	86-ZM3-207-010		S-SCREW,RPH
13	87-A90-404-019		HEAD,EH LE15B
14	86-ZM3-208-010		S-SCREW,EH
15	86-ZM3-203-010		HLDR,MOTS
16	82-ZM1-245-210		HLDR,IC
17	82-ZM1-218-019		SPR-E,HB
18	86-ZM3-214-010		BELT,SUB RR
19	82-ZM1-222-219		LVR,PLAY
20	82-ZM1-217-419		REEL TABLE
21	82-ZM1-244-519		SPR-C,BT
22	82-ZM1-285-410		SPR-C,BT L
23	82-ZM1-257-019		SPR-T,CAS
24	82-ZM3-221-010		PULLEY,MOT 2M
25	82-ZM1-242-019		LVR,CAS
26	82-ZM1-243-019		LVR,STOP
27	82-ZM1-344-119		LVR ASSY,PINCH
28	86-ZM3-204-010		SPR-T,PINCHDS
29	82-ZM1-240-119		LVR,REC (DECK 2)
30	86-ZM3-210-010		BELT,RS
32	82-ZM3-305-119		GEAR,CAM M2
33	82-ZM1-227-319		LVR,TRIG
34	82-ZM3-306-110		LVR,FR M2
35	82-ZM1-265-119		SPR-E,TRIG
36	87-761-073-419		VFT2+2.6-6 W/O SLOT
37	82-ZM1-239-019		CAPSTAN N 2.2-41.7
38	82-ZM1-322-019		SPR-T,FR60
39	82-ZM1-220-219		GEAR,IDLER
40	82-ZM3-616-019		RING MAGNET 4
41	82-ZM1-216-319		GEAR,REEL
42	86-ZM3-213-010		S-SCREW,HLDR,MOT 3
43	82-ZM1-225-219		GEAR,FR
44	82-ZM1-226-019		GEAR,REW
45	82-ZM3-333-310		SLIP DISK ASSY 2
46	82-ZM1-338-010		BELT FR4
47	82-ZM1-349-019		FLY-WHL RW (DECK L)
47	82-ZM3-338-010		FLY-WHL R3W (DECK R)
48	82-ZM1-259-210		SPR-T,PINCH R
49	82-ZM1-341-110		LVR ASSY,PINCH L2
50	82-ZM1-258-210		SPR-T,PINCH L
51	82-ZM1-314-110		PLATE,HEAD
52	82-ZM1-208-310		HLDR,HEAD
53	87-A90-366-010		HEAD,PH YK50P-BF414
54	82-ZM1-207-810		GUIDE TAPE
55	82-ZM1-213-010		SPR-T,HEAD
56	82-ZM1-210-110		GEAR,HT
57	86-ZM4-206-010		S-SCREW AZIMUTH L
58	82-ZM1-348-010		FLY-WHL,LW
59	82-ZM1-236-019		CAPSTAN N 2-41.5
60	82-ZM3-335-210		PULLEY,COUPLER M3
61	86-ZM1-206-010		BELT,MAIN L
62	82-ZM1-266-110		LVR,DIR
63	82-ZM1-214-010		SPR-T,DIR
64	82-ZM1-255-310		SPR-E,LVR DIR
65	82-ZM3-339-010		SHAFT,COUPLER N3
A	87-251-071-417		U+2.6-4
B	80-ZM6-243-019		SH,1.75-3.6-0.5 SLT
C	82-ZM3-334-010		PW,2.16-6-0.4
D	80-ZM6-207-010		V+1.6-7
E	85-ZM3-202-010		S-SCREW TG
F	82-ZM1-288-010		SH,1.63-3.2-0.5 SLT
G	87-B10-043-010		W-P,0.99-4-0.25 SLT
H	87-571-032-410		VIT+2-3

SPRING APPLICATION POSITION <6ZM-3 YPR2N>

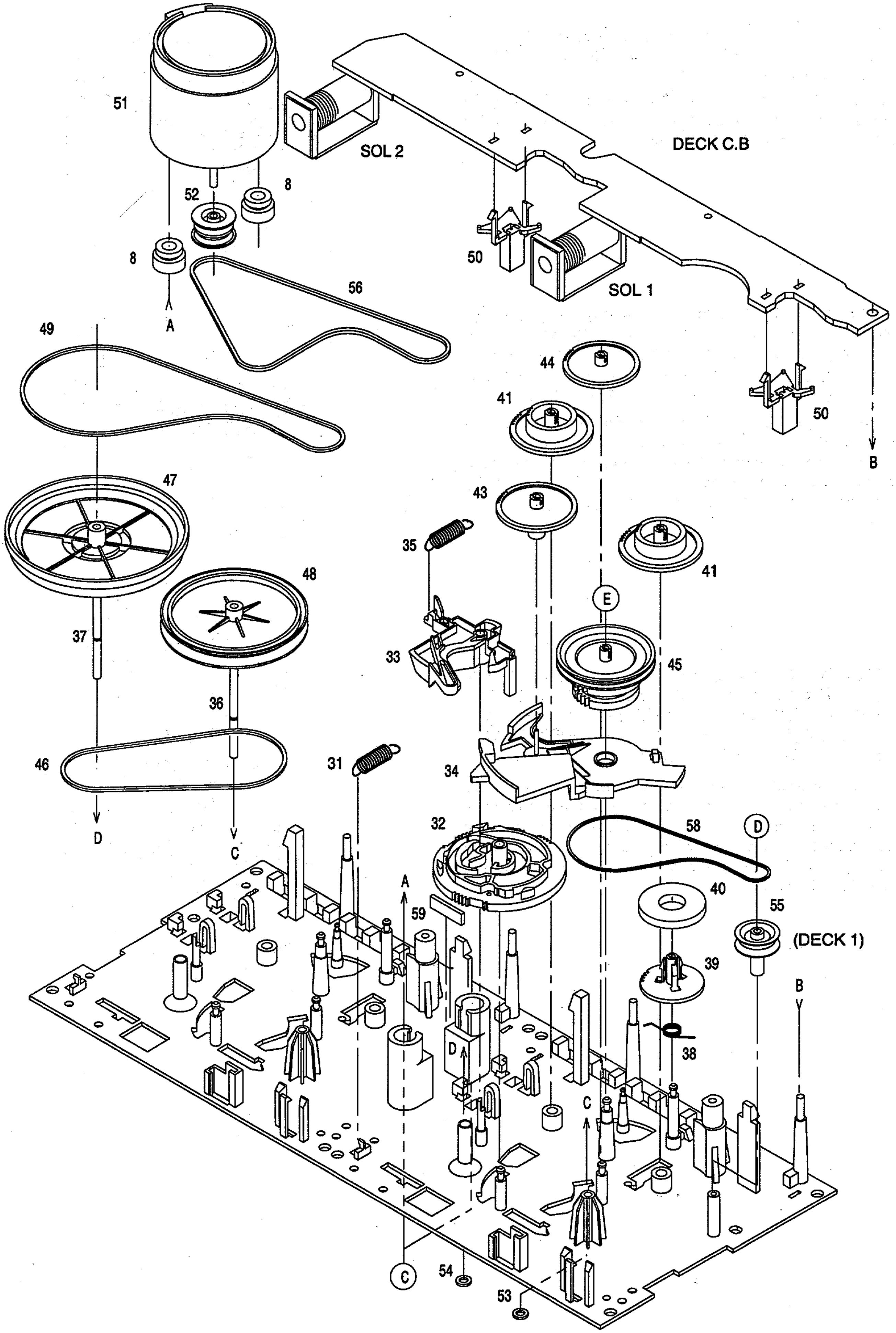

82-ZM1-219-110
SPR-T,LINK
82-ZM1-285-410
SPR-C,BT L
82-ZM1-257-019
SPR-T,CAS
82-ZM1-218-019
SPR-E,HB
82-ZM1-244-519
SPR-C,BT
82-ZM1-214-010
SPR-T,DIR
82-ZM1-255-310
SPR-E,LVR DIR
86-ZM3-205-010
SPR-C,RPH S
86-ZM3-204-010
SPR-T,PINCH DS
82-ZM1-213-010
SPR-T,HEAD
86-ZM1-258-210
SPR-T,PINCH L
86-ZM1-259-210
SPR-T,PINCH R
86-ZM3-206-010
SPR-C,EH S
82-ZM1-269-219
SPR-T,BRG


82-ZM1-322-019
SPR-T,FR 60
82-ZM1-265-119
SPR-E.TRIG

TAPE MECHANISM EXPLODED VIEW 1 / 1 <2ZM-3 3MK2 PR4NM / YPR4N>



14
15
B
B
A
42
PH(DECK 1)
RPH(DECK 2)
16
12
13
17
11
10
18
(DECK 2)
9
7
3
18
(DECK 1)
19
2
5
6
A
20
4
HEAD 1 C.B(DECK 1)
HEAD 2 C.B(DECK 2)
22
57
(DECK 1)
21
29
(DECK 2)
24
25
23
26
29 (DECK 2)
A
27
1
28

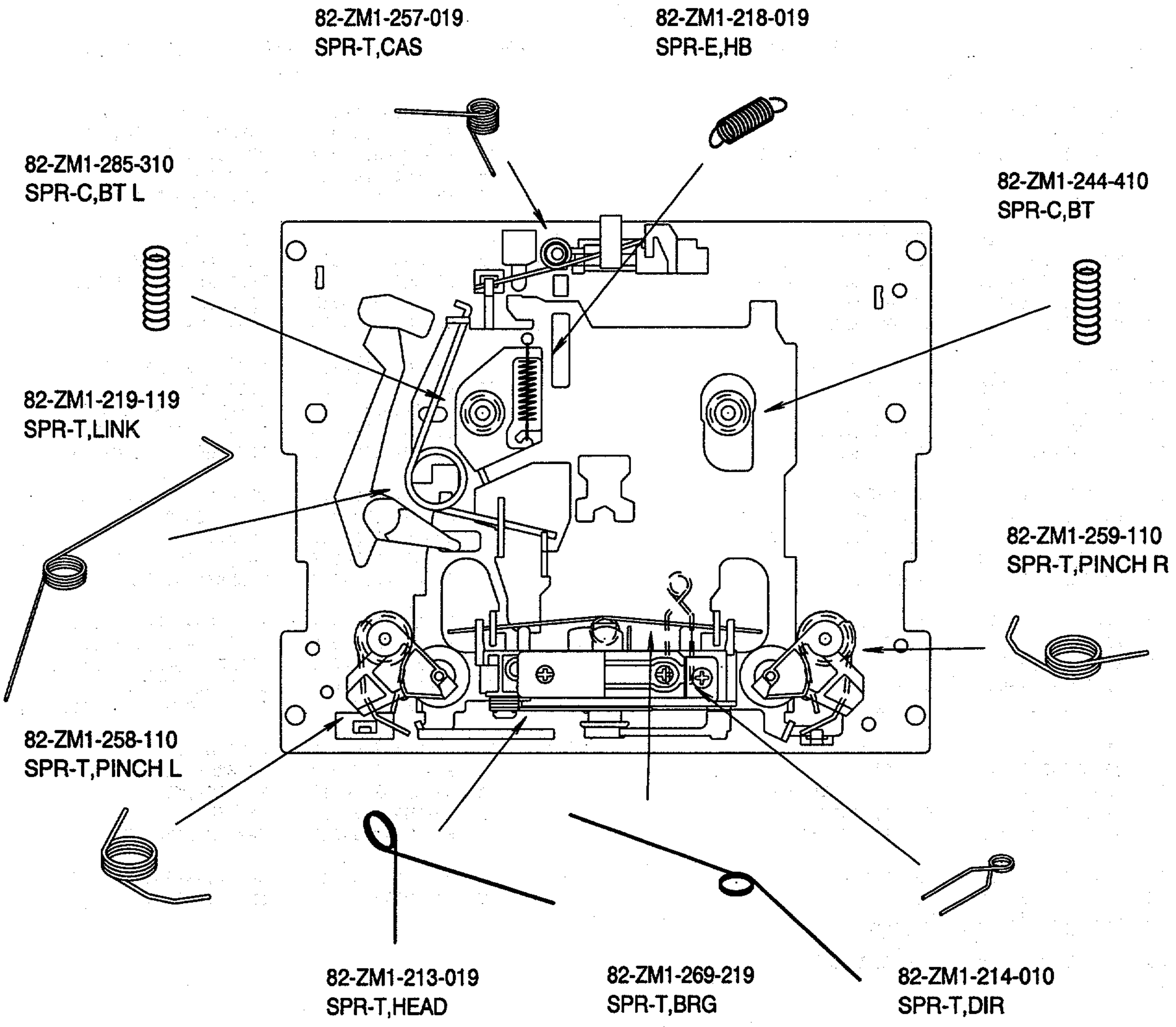

SOL 2
DECK C.B
SOL 1
A
B
E
D
D
C
A
(DECK 1)
B
D
C
C

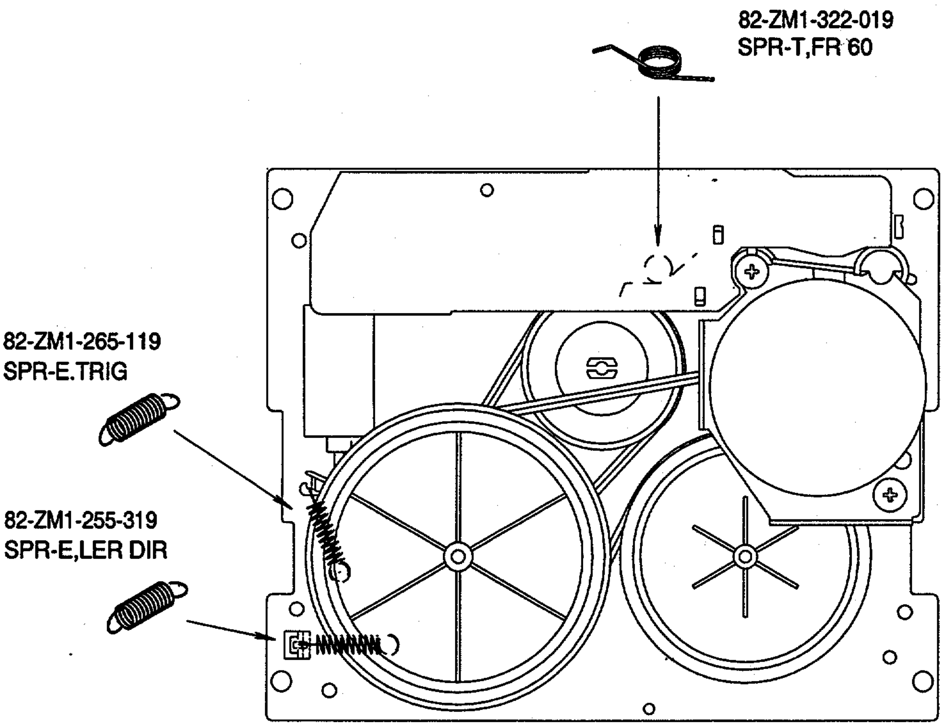
TAPE MECHANISM PARTS LIST 1 / 1 <2ZM-3MK2 PR4NM / YPR4N>

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	82-ZM3-301-519		CHAS ASSY,M2
2	82-ZM1-258-110		SPR-T,PINCH L
3	82-ZM1-341-110		LVR ASSY,PINCH L2
4	82-ZM1-333-010		PLATE,LINK 2
5	82-ZM1-266-11K		LVR,DIR
6	82-ZM1-214-010		SPR-T,DIR
7	82-ZM1-206-81K		CHAS,HEAD
8	82-ZM3-307-019		CUSH-G,DIA3.7-8-3.2
9	82-ZM1-269-219		SPR-T,BRG
10	82-ZM1-219-119		SPR-T,LINK
11	82-ZM1-210-119		GEAR,H T
12	82-ZM1-213-019		SPR-T,HEAD
13	82-ZM1-207-619		GUIDE,TAPE
14	86-ZM4-206-010		S-SCREW,AZIMUTH
15	82-ZM1-314-119		PLATE,HEAD
16	82-ZM1-208-119		HLDR,HEAD
17	82-ZM1-218-019		SPR-E,HB
18	82-ZM1-263-110		LVR,EJECT L (DECK 1)
18	82-ZM1-264-010		LVR,EJECT R (DECK 2)
19	82-ZM1-222-21K		LVR,PLAY
20	82-ZM1-217-319		REEL TABLE
21	82-ZM1-244-510		SPR-C,BT
22	82-ZM1-285-310		SPR-C,BT L
23	82-ZM1-257-019		SPR-T,CAS
24	82-ZM1-241-319		LVR,MC
25	82-ZM1-242-019		LVR,CAS
26	82-ZM1-243-019		LVR,STOP
27	82-ZM1-344-110		LVR ASSY,PINCH R2
28	82-ZM1-259-110		SPR-T,PINCH R
29	82-ZM1-240-11K		LVR,REC (DECK 2)
31	82-ZM1-255-319		SPR-E,LVR DIR
32	82-ZM3-305-01K		GEAR,CAM M2
33	82-ZM1-227-21K		LVR,TRIG
34	82-ZM3-306-11K		LVR,FR M2
35	82-ZM1-265-119		SPR-E,TRIG
36	82-ZM1-236-019		CAPSTAN N 2-41.5
37	82-ZM1-239-019		CAPSTAN N 2.2-41.7
38	82-ZM1-322-019		SPR-T,FR60
39	82-ZM1-220-219		GEAR,IDLER
40	82-ZM3-616-019		RING MAGNET 4
41	82-ZM1-216-31K		GEAR,REEL
42	87-A90-319-010		HEAD,PH HADKH2 FPC
42	87-A90-320-010		HEAD,RPH HADKH5 FPC
43	82-ZM1-225-21K		GEAR,FR
44	82-ZM1-226-019		GEAR,REW
45	82-ZM3-333-310		SLIP DISK ASSY 2
46	82-ZM1-338-010		BELT FR4
47	82-ZM1-349-110		FLY-WHL,R W(DECK 2)
47	82-ZM3-338-110		FLY-WHL,R3 W(DECK 1)
48	82-ZM1-348-010		FLY-WHL,L W(DECK 2)
48	82-ZM1-348-010		FLY-WHL,L W(DECK 1)
49	82-ZM3-329-210		BELT,SBU R2
50	82-ZM1-245-210		HLDR,IC
51	87-045-347-019		MOT,SHU2L 70(M1)
52	82-ZM3-221-010		PULLEY,MOT 2M
53	82-ZM1-288-019		SH,1.63-3.2-0.5 SLT
54	80-ZM6-243-019		SH,1.75-3.6-0.5 SLT
55	82-ZM3-335-210		PULLEY,COUPLER M3(DECK 1)
56	82-ZM3-337-010		BELT,SBU MOT 2
57	82-ZM3-339-010		SHAFT,COUPLER N3(DECK 1)
58	86-ZM1-206-010		BELT,MAIN L
59	82-ZM3-340-010		SH,BELT D2
A	85-ZM3-202-010		S-SCREW,TG
B	80-ZM6-207-019		V+1.6-7
C	82-ZM3-318-019		S-SCRW MOTOR M2
D	87-B10-043-010		W-P,0.99-4-0.25 SLT
E	82-ZM3-334-010		PW,2.16-6-0.4

SPRING APPLICATION POSITION <2ZM-3MK2 PR4NM / YPR4N>


82-ZM1-257-019
SPR-T,CAS
82-ZM1-218-019
SPR-E,HB
82-ZM1-285-310
SPR-C,BT L
82-ZM1-244-410
SPR-C,BT
82-ZM1-219-119
SPR-T,LINK
82-ZM1-259-110
SPR-T,PINCH R
82-ZM1-258-110
SPR-T,PINCH L
82-ZM1-213-019
SPR-T,HEAD
82-ZM1-269-219
SPR-T,BRG
82-ZM1-214-010
SPR-T,DIR

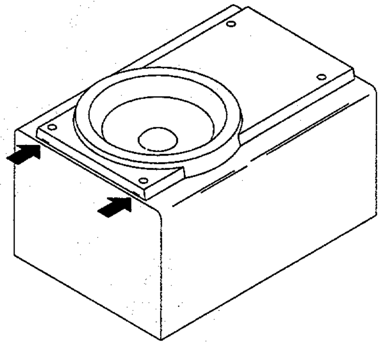

82-ZM1-322-019
SPR-T,FR 60
82-ZM1-265-119
SPR-E.TRIG
82-ZM1-255-319
SPR-E,LER DIR

SPEAKER DISASSEMBLY INSTRUCTIONS

Type.1

矢印の位置にマイナスドライバーを差し込んで、パネルを外します。各々のスピーカーユニットのビスを取り、スピーカーユニットを外してください。

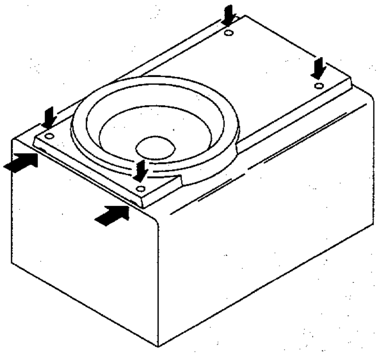
Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Remove the screws of each speaker unit and then remove the speaker units.



Type.2

グリルフレームを外し、4個のゴムキャップをマイナスドライバーで端の方から持ち上げて外すと中にビスが有りますので、ビスを取り外します。矢印の位置にマイナスドライバーを差し込んで、パネルを外します。各々のスピーカーユニットのビスを取り、スピーカーユニットを外してください。

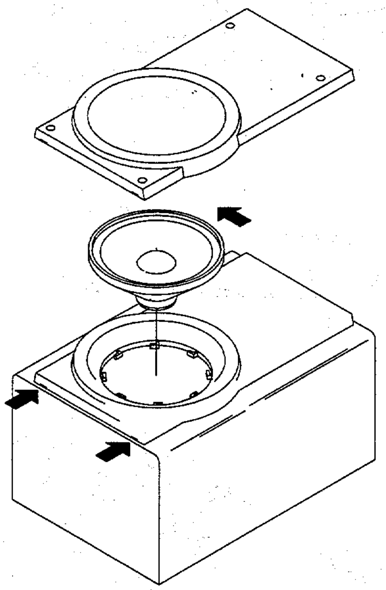
Remove the grill frame and four pieces of rubber caps by pulling out with a flat-bladed screwdriver Remove the screws from hole where installed rubber caps. Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Remove the screws of each speaker unit and then remove the speaker units.



Type.3

矢印の位置にマイナスドライバーを差し込んで、パネルを外します。各々のスピーカーユニットの凹にマイナスドライバーを差し込んで、反時計方向に回転させスピーカーユニットを外してください。スピーカーユニット交換後は時計方向にクリック音がするまで、回転させて取り付けます。

Insert a flat-bladed screwdriver into the position indicated by the arrows and remove the panel. Turn the speaker unit to counter-clockwise direction while inserting a flat-bladed screwdriver into one of the hollows around speaker unit, and then remove the speaker unit. After replacing the speaker unit, install it turning to clockwise direction until "click" sound comes out.



SX-FNS505 (YJSTNC, YSTNC)
SPEAKER PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	85-NS6-611-010		SPEAKER CORD Y/B
2	86-NS5-606-010		SPKR
3	86-NSA-610-010		SPKR,T 60H
4	87-NS4-611-010		SPKR,CORD
5	87-NS5-602-010		SPKR,W160
6	87-NSA-001-010		PANEL FR
7	87-NSA-002-010		PANEL SP
8	87-NSA-004-010		GRILLE FRAME ASSY
9	87-NSA-007-010		HLDR SQ
10	87-NSA-010-010		PROTECTOR
11	87-NSA-610-010		SPKR CERAMIC
12	87-NSA-611-010		SPKR CAP

SX-ANS706 (YJSTNL, YSTNL)
SPEAKER PARTS LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	88-NS2-001-010		PANEL,FR R
2	88-NS2-002-010		PANEL,FR L
3	88-NS2-014-010		GRILLE,FRAME ASSY
4	88-NS2-008-010		PROTECTOR, TW R
5	88-NS2-009-010		PROTECTOR, TW L
6	88-NS2-010-010		PROTECTOR, TOP
7	87-NS4-611-010		SPKR,CORD
8	85-NS6-611-010		SPKR,CORD Y/B
9	86-NS4-604-010		SPKR,M 80
10	88-NS2-609-010		SPKR,CERAMIC
11	86-NSA-608-010		SPKR,W 160H<STNL>
12	87-NSS-602-010		SPKR,W 160<JSTL>
13	87-NS4-605-010		SPKR,T 50
14	88-NS2-606-010		SPKR,SU 60

ACCESSORIES / PACKAGE LIST

If can't understand for Description please kindly refer to " REFERENCE NAME LIST ".

REF. NO.	PART NO.	KANRI NO.	DESCRIPTION
1	88-NF7-901-010		IB,H(ECA)M<HR,HE>
1	88-NF7-916-010		IB,E(9L)M<EZ>
1	88-NF7-905-010		IB,K(E)E<K>
2	87-006-269-010		AM LOOP ANT (UN)<HR>
2	87-006-225-010		AM LOOP ANT NC2<EZ,K>
2	87-A90-054-010		ANT,LOOP AM-CON C<HE>
3	87-A90-064-010		FEEDER-ANT,FM(SHS)<HR,HE>
3	87-043-106-010		ANT,FM 1007 AWG<EZ,K>
⚠ 4	87-A90-312-010		PLUG,CONVERSION WTN-1157R1<HR,HE>
5	87-NF6-635-010		RC UNIT,RC-7AS06
6	87-043-095-010		ANT,WIRE<HR,HE>

REFERENCE NAME LIST

ELECTRICAL SECTION

DESCRIPTION	REFERENCE NAME
ANT	ANTENNAS
C-	CHIP
C-CAP	CAP, CHIP
C-CAP TN	CAP, CHIP TANTALUM
C-COIL	COIL, CHIP
C-DI	DIODE, CHIP
C-DIODE	DIODE, CHIP
C-FET	FET, CHIP
C-FOTR	FILTER, CHIP
C-JACK	JACK, CHIP
C-LED	LED, CHIP
C-RES	RES, CHIP
C-SFR	SFR, CHIP
C-SLIDE SW	SLIDE SWITCH, CHIP
C-SW	SWITCH, CHIP
C-TR	TRANSISTOR, CHIP
C-VR	VOLUME, CHIP
C-ZENER	ZENER, CHIP
CAP, CER	CAP, CERA-SOL
CAP, E	CAP, ELECT
CAP, M/F	CAP, FILM
CAP, TC	CAP, CERA-SOL
CAP, TC-U	CAP, CERA-SOL SS
CAP, TN	CAP, TANTALUM
CERA FIL	FILTER, CERAMIC
CF	FILTER, CERAMIC
DL	DELAY LINE
E/CAP	CAP, ELECT
FILT	FILTER
FLTR	FILTER
FUSE RES	RES, FUSE
MOT	MOTOR
P-DIODE	PHOTO DIODE
P-SNSR	PHOTO SENSER
P-TR	PHOTO TRANSISTOR
POLY VARI	VARIABLE CAPACITOR
PPCAP	CAP, PP
PT	POWER TRANSFORMER
PTR, RES	PTR, MELF
RC	REMOTE CONTROLLER
RES NF	RES, NON-FLAMMABLE
RESO	RESONATOR
SHLD	SHIELD
SOL	SOLENOID
SPKR	SPEAKER
SW, LVR	SWITCH, LEVER
SW, RTRY	SWITCH, ROTARY
SW, SL	SWITCH, SLIDE
TC CAP	CAP, CERA-SOL
THMS	THERMISTOR
TR	TRANSISTOR
TRIMER	CAP, TRIMMER
TUN-CAP	VARIABLE CAPACITOR
VIB, CER	RESONATOR, CERAMIC
VIB, XTAL	RESONATOR, CRYSTAL
VR	VOLUME
ZENER	DIODE, ZENER

MECHANICAL SECTION

DESCRIPTION	REFERENCE NAME
ADHESHIVE	SHEET ADHESHIVE
AZ	AZIMUTH
BAR-ANT	BAR-ANTENNA
BAT	BATTERY
BATT	BATTERY
BRG	BEARING
BTN	BUTTON
CAB	CABINET
CASS	CASSETTE
CHAS	CHASSIS
CLR	COLLAR
CONT	CONTROL
CRSR	CURSOR
CU	CUSHION
CUSH	CUSHION
DIR	DIRECTION
DUBB	DUBBING
FL	FRONT LOADING
FLY-WHL	FLYWHEEL
FR	FRONT
FUN	FUNCTION
G-CU	G-CUSHION
HDL	HANDOL
HIMERON	CLOTH
HINGE, BAT	HINGE, BATTERY
HLDR	HOLDER
HT-SINK	HEAT SINK
IB	INSTRUCTION BOOKLET
IDLE	IDLER
IND, L-R	INDICATOR, L-R
KEY, CONT	KEY, CONTROL
KEY, PRGM	KEY, PROGRAM
KNOB, SL	KNOB, SLIDE
LBL	LABEL
LID, BATT	LID, BATTERY
LID, CASS	LID, CASSETTE
LVR	LEVER
P-SP	P-SPRING
PANEL, CONT	PANEL, CONTROL
PANEL, FR	PANEL, FRONT
PRGM	PROGRAM
PULLY, LOAD MO	PULLY, LOAD MOTOR
RBN	RIBBON
S-	SPECIAL
SEG	SEGMENT
SH	SHEET
SHLD-SH	SHIELD-SHEET
SL	SLIDE
SP	SPRING
SP-SCREW	SPECIAL-SCREW
SPACER, BAT	SPACER, BATTERY
SPR	SPRING
SPR-P	P-SPRING
SPR-PC-PUSH	P-SPRING, C-PUSH
T-SP	T-SPRING
TERM	TERMINAL
TRIG	TRIGGER
TUN	TUNING
VOL	VOLUME
W	WASHER
WHL	WHEEL
WORM-WHL	WORM-WHEEL

サービス技術ニュース	
番号	連絡内容
G—　　—	
G—　　—	
G—　　—	

アイワ株式会社
AIWA CO.,LTD.

9301978, 750038

Tokyo Japan

〒110-8710 東京都台東区池之端1-2-11 ☎03（3827）3111（代表）

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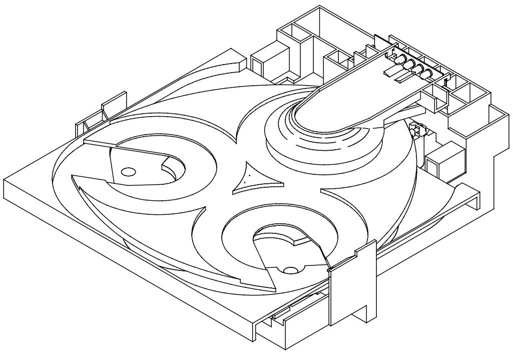
aiwa

aiwa SERVICE

4ZG-1



CD MECHANISM

- BASIC CD MECHANISM:3ZG-2 E1
- TYPE: English

BASIC NAME	DERIVATION NAME					
4ZG-1	V	O	S1	D	SH	

■ This Service Manual has various derivation.Derivation name is indicated by the Service Manual for each model.

SERVICE MANUAL

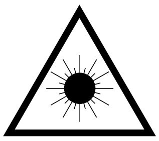
S/M Code No. 09-985-249-80T

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs laser. Therefore, be sure to follow carefully the instructions below when servicing.

WARNING!

WHEN SERVICING, DO NOT APPROACH THE LASER EXIT WITH THE EYE TOO CLOSELY. IN CASE IT IS NECESSARY TO CONFIRM LASER BEAM EMISSION. BE SURE TO OBSERVE FROM A DISTANCE OF MORE THAN 30cm FROM THE SURFACE OF THE OBJECTIVE LENS ON THE OPTICAL PICK-UP BLOCK.



- ■ Caution: Invisible laser radiation when open and interlocks defeated avoid exposure to beam.
- ■ Advarsel: Usynling laserståling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsættelse for stråling.

VAROITUS!

Laiteen Käyttäminen muulla kuin tässä käyttöohjeessa mainitulla tavalla saattaa altistaa käyt-täjän turvallisuusluokan 1 ylittävälle näkymättömälle lasersäteilylle.

VARNING!

Om apparaten används på annat sätt än vad som specificeras i denna bruksanvising, kan användaren utsättas för osynling laserstrålning, som överskrider gränsen för laserklass 1.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

ATTENTION

L'utilisation de commandes, réglages ou procédures autres que ceux spécifiés peut entraîner une dangereuse exposition aux radiations.

ADVARSEL!

Usynlig laserståling ved åbning, når sikkerhedsafbrydereer ude af funktion. Undgå udsættelse for stråling.

This Compact Disc player is classified as a CLASS 1 LASER product.
The CLASS 1 LASER PRODUCT label is located on the rear exterior.

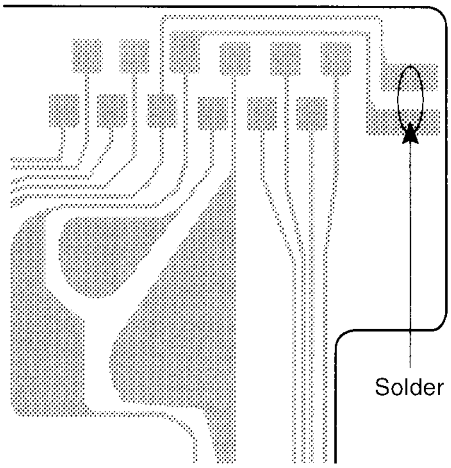
CLASS 1	LASER PRODUCT
KLASSE 1	LASER PRODUKT
LUOKAN 1	LASER LAITE
KLASS 1	LASER APPARAT

Precaution to replace Optical block (KSS-213F)

Body or clothes electrostatic potential could ruin laser diode in the optical block. Be sure ground body and workbench, and use care the clothes do not touch the diode.

1) After the connection, remove solder shown in the right figure.

PICK-UP Assy P.C.B



This is the SERVICE MANUAL for the BASIC CD MECHANISM of BASIC NAME: 4ZG-1. This BASIC NAME includes the following models as shown under the SUFFIX name: DERIVATION NAME. Please use this manual with the separate SERVICE MANUAL for DERIVATION NAME.

BASIC CD MECHANISM: 4ZG-1 VOS1DSH

SUFFIX
(DERIVATION NAME)

BASIC NAME: 4ZG-1

BASIC NAME	DERIVATION NAME							
4ZG-1	V	O	S1	D	SH	—	—	—

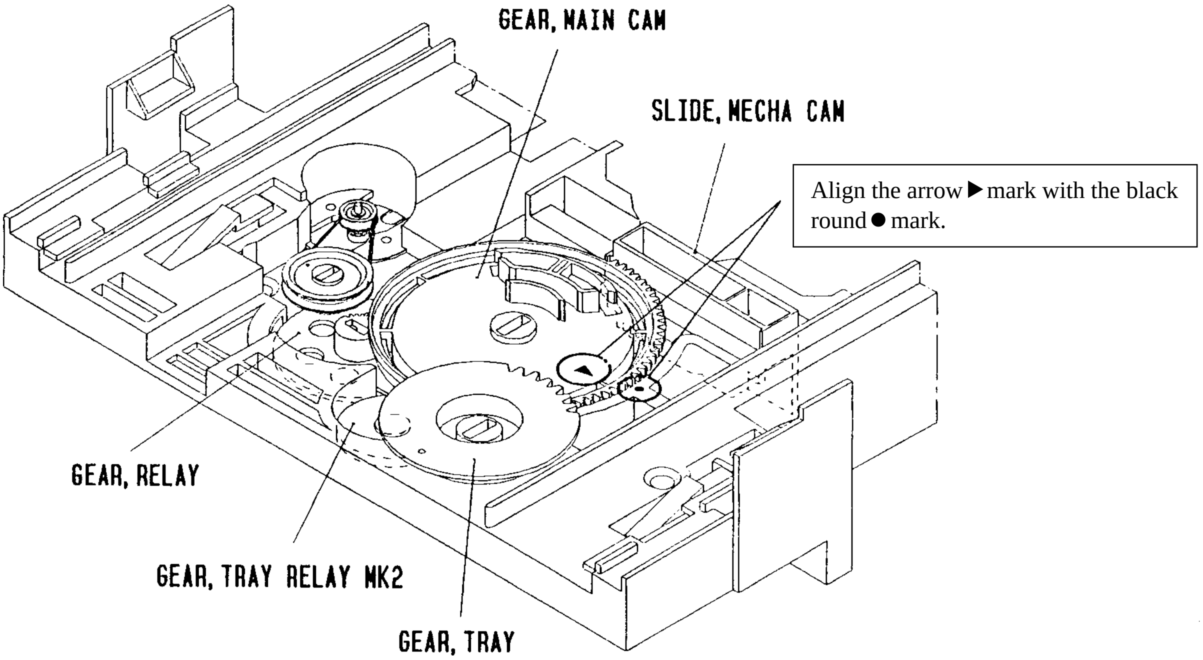
DERIVATION NAME

V: VIDEO OUT
O: On screen display
S1: THE 1st SONY IC MODEL
D: Digital output function
SH: Pick up equipped with shutter

How to Adjust the Rotating Phase of the Gear, Main Cam

1) Push down the hooking catch of the CHAS. MECH, and remove the TRAY.
2) Align the arrow mark of the Gear, Main Cam with the black round mark of the CHAS, MECHA as shown below.
3) Confirm that the Slide, Mech Cam is located in the right position, then insert the TRAY gently.

Caution: If the rotating phase of the Gear, Main Cam is incorrectly adjusted, the chucking operation and tray movement will have malfunction.


GEAR, MAIN CAM
SLIDE, MECHA CAM
GEAR, RELAY
GEAR, TRAY RELAY MK2
GEAR, TRAY

Align the arrow ▶ mark with the black round ● mark.

ELECTRICAL MAIN PARTS LIST

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
IC			
	87-A20-547-010		C-IC,CXA1992AR
	87-A20-919-040		C-IC,BA5915FP
	87-A20-917-010		C-IC,CXD2540Q-1/2
	84-ZG1-697-010		C-IC,UPD78016FGC-549
	87-017-825-010		IC,GP1F32T
	87-017-760-080		IC,M51943BML
	87-A20-602-040		C-IC,M5291FP
	87-A20-925-040		C-IC,BA05FP
	87-A20-905-040		C-IC,BA033FP
	87-001-873-010		IC,LB1644
	87-A20-920-010		C-IC,CL680-D1
	87-A20-921-040		C-IC,SN74LVU04APW
	87-A20-656-040		C-IC,MB81V4260S-60/70PFTN
	84-ZG1-695-040		C-IC,LH5V2RN1
	87-A20-975-040		C-IC,SN74LV74APW
	87-A20-974-040		C-IC,LC74781M-9017
	87-A20-918-040		C-IC,SM5878AM
TRANSISTOR			
	87-026-463-080		TR,2SA933S (0.3W)
	87-026-237-080		CHIP-TR,DTC124XK
	89-327-125-080		CHIP TR,2SC2712GR
	87-026-231-080		CHIP-TRANSISTER,DTA124XK
	87-A30-117-010		TR,2SA1357
	89-111-625-080		TR,2SA1162 (0.15W)
	87-026-580-080		C-TR,DTA123JK
	87-026-470-080		TR,HN1C03F (0.3W)
DIODE			
	87-020-027-080		CHIP-DIODE 1SS184
	87-017-024-040		C-DIODE,DA204K
	87-A40-180-040		C-DIODE,SB07-015C
	87-A40-384-080		C-ZENER,UDZ3.3B
3CD C.B			
C101	87-010-182-080		C-CAP,S 2200P-50 B
C102	87-016-669-080		C-CAP,S 0.1-25 K B
C103	87-016-669-080		C-CAP,S 0.1-25 K B
C104	87-016-669-080		C-CAP,S 0.1-25 K B
C105	87-010-404-040		CAP,E 4.7-50 SME
C106	87-016-369-080		C-CAP,S 0.033-25 B K
C107	87-010-197-080		CAP, CHIP 0.01 DM
C108	87-010-401-040		CAP,E 1-50 SME
C109	87-010-382-040		CAP,E 22-25 SME
C110	87-010-213-080		C-CAP,S 0.015-50 B
C111	87-010-263-040		CAP,E 100-10
C112	87-010-197-080		CAP, CHIP 0.01 DM
C113	87-016-369-080		C-CAP,S 0.033-25 B K
C114	87-016-369-080		C-CAP,S 0.033-25 B K
C115	87-016-369-080		C-CAP,S 0.033-25 B K
C116	87-012-158-080		C-CAP,S 390P-50 CH
C117	87-012-154-080		C-CAP,S 150P-50 CH
C118	87-010-494-040		CAP,E 1-50 GAS
C119	87-010-152-080		C-CAP,S 8P-50 CH
C120	87-010-992-080		C-CAP,S 0.047-25 B
C121	87-010-992-080		C-CAP,S 0.047-25 B
C123	87-016-669-080		C-CAP,S 0.1-25 K B
C125	87-010-198-080		CAP, CHIP 0.022
C126	87-016-669-080		C-CAP,S 0.1-25 K B
C127	87-010-555-040		CAP,E 100-10 GAS
C130	87-010-555-040		CAP,E 100-10 GAS
C131	87-010-555-040		CAP,E 100-10 GAS
C132	87-010-178-080		CHIP CAP 1000P
C133	87-010-555-040		CAP,E 100-10 GAS
C134	87-010-196-080		CHIP CAPACITOR,0.1-25
C135	87-010-196-080		CHIP CAPACITOR,0.1-25
C136	87-010-196-080		CHIP CAPACITOR,0.1-25
C137	87-010-196-080		CHIP CAPACITOR,0.1-25
C138	87-010-182-080		C-CAP,S 2200P-50 B
C139	87-010-197-080		CAP, CHIP 0.01 DM
C140	87-010-112-040		CAP,E 100-16
C141	87-010-196-080		CHIP CAPACITOR,0.1-25
C142	87-010-196-080		CHIP CAPACITOR,0.1-25
C143	87-010-213-080		C-CAP,S 0.015-50 B
C151	87-010-263-040		CAP,E 100-10
C152	87-010-197-080		CAP, CHIP 0.01 DM
C153	87-A10-893-040		CAP,E 220-10 M PW
C154	87-010-197-080		CAP, CHIP 0.01 DM
C155	87-010-184-080		CHIP CAPACITOR 3300P(K)
C156	87-010-992-080		C-CAP,S 0.047-25 B
C157	87-010-992-080		C-CAP,S 0.047-25 B
C158	87-012-156-080		C-CAP,S 220P-50 CH
C159	87-016-526-080		C-CAP,S 0.47-16 BK
C160	87-010-314-080		C-CAP,S 22P-50V
C161	87-010-182-080		C-CAP,S 2200P-50 B
C162	87-010-178-080		CHIP CAP 1000P
C201	87-016-669-080		C-CAP,S 0.1-25 K B
C204	87-010-197-080		CAP, CHIP 0.01 DM
C205	87-010-379-040		CAP,E 22-16 M SME
C206	87-010-322-080		C-CAP,S 100P-50 CH
C207	87-010-322-080		C-CAP,S 100P-50 CH
C208	87-010-322-080		C-CAP,S 100P-50 CH
C209	87-010-322-080		C-CAP,S 100P-50 CH
C210	87-016-669-080		C-CAP,S 0.1-25 K B
C211	87-010-263-040		CAP,E 100-10
C213	87-010-190-080		S CHIP F 0.01
C214	87-010-196-080		CHIP CAPACITOR,0.1-25
C301	87-016-251-040		CAP,E 220-16 SMG
C302	87-012-140-080		CAP 470P
C303	87-010-178-080		CHIP CAP 1000P
C304	87-010-384-040		CAP,E 100-25 SME
C305	87-010-982-040		CAP,E 33-25 GAS
C306	87-010-112-040		CAP,E 100-16
C307	87-010-196-080		CHIP CAPACITOR,0.1-25
C308	87-010-263-040		CAP,E 100-10
C309	87-010-196-080		CHIP CAPACITOR,0.1-25
C310	87-010-263-040		CAP,E 100-10
C311	87-010-196-080		CHIP CAPACITOR,0.1-25
C312	87-010-178-080		CHIP CAP 1000P
C320	87-010-196-080		CHIP CAPACITOR,0.1-25
C401	87-016-044-040		CAP,E 100-16 GAS
C402	87-010-190-080		S CHIP F 0.01
C403	87-010-190-080		S CHIP F 0.01
C501	87-010-197-080		CAP, CHIP 0.01 DM
C502	87-010-197-080		CAP, CHIP 0.01 DM
C503	87-010-197-080		CAP, CHIP 0.01 DM
C504	87-010-154-080		CAP CHIP 10P
C505	87-010-154-080		CAP CHIP 10P
C506	87-010-197-080		CAP, CHIP 0.01 DM
C508	87-010-263-040		CAP,E 100-10
C509	87-016-669-080		C-CAP,S 0.1-25 K B
C510	87-010-263-040		CAP,E 100-10
C511	87-016-669-080		C-CAP,S 0.1-25 K B
C512	87-010-197-080		CAP, CHIP 0.01 DM
C513	87-010-197-080		CAP, CHIP 0.01 DM
C514	87-010-197-080		CAP, CHIP 0.01 DM
C518	87-010-322-080		C-CAP,S 100P-50 CH
C519	87-012-145-080		CAP, CHIP S 270P CH
C520	87-012-157-080		C-CAP,S 330P-50 CH
C521	87-012-154-080		C-CAP,S 150P-50 CH
C522	87-010-371-080		CAP, ELECT 470-6.3V
C523	87-010-197-080		CAP, CHIP 0.01 DM
C524	87-010-197-080		CAP, CHIP 0.01 DM
C525	87-010-197-080		CAP, CHIP 0.01 DM
C526	87-010-197-080		CAP, CHIP 0.01 DM

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
C527	87-010-197-080		CAP, CHIP 0.01 DM
C528	87-010-197-080		CAP, CHIP 0.01 DM
C529	87-010-197-080		CAP, CHIP 0.01 DM
C530	87-010-197-080		CAP, CHIP 0.01 DM
C531	87-010-197-080		CAP, CHIP 0.01 DM
C532	87-010-374-040		CAP,E 47-10
C533	87-010-197-080		CAP, CHIP 0.01 DM
C534	87-010-555-040		CAP,E 100-10 GAS
C535	87-010-197-080		CAP, CHIP 0.01 DM
C536	87-010-078-040		CAP,E 47-6.3 5L
C537	87-010-197-080		CAP, CHIP 0.01 DM
C538	87-010-196-080		CHIP CAPACITOR,0.1-25
C539	87-016-669-080		C-CAP,S 0.1-25 K B
C540	87-010-078-040		CAP,E 47-6.3 5L
C541	87-010-197-080		CAP, CHIP 0.01 DM
C542	87-010-318-080		C-CAP,S 47P-50 CH
C544	87-010-197-080		CAP, CHIP 0.01 DM
C546	87-010-197-080		CAP, CHIP 0.01 DM
C549	87-010-494-040		CAP,E 1-50 GAS
C550	87-010-196-080		CHIP CAPACITOR,0.1-25
C551	87-012-153-080		C-CAP,S 120P-50 CH
C552	87-016-526-080		C-CAP,S 0.47-16 BK
C554	87-010-197-080		CAP, CHIP 0.01 DM
C556	87-010-378-040		CAP,E 10-16
C557	87-010-316-080		C-CAP,S 33P-50 CH
C558	87-010-315-080		C-CAP,S 27P-50 CH
C560	87-010-197-080		CAP, CHIP 0.01 DM
C601	87-010-197-080		CAP, CHIP 0.01 DM
C602	87-010-197-080		CAP, CHIP 0.01 DM
C603	87-010-112-040		CAP,E 100-16
C604	87-010-196-080		CHIP CAPACITOR,0.1-25
C605	87-010-197-080		CAP, CHIP 0.01 DM
C606	87-010-197-080		CAP, CHIP 0.01 DM
C607	87-010-313-080		CAP, CHIP 18P
C608	87-010-313-080		CAP, CHIP 18P
C609	87-010-178-080		CHIP CAP 1000P
C610	87-010-178-080		CHIP CAP 1000P
C611	87-010-178-080		CHIP CAP 1000P
C612	87-010-178-080		CHIP CAP 1000P
C613	87-010-403-040		CAP,E 3.3-50 SME
C614	87-010-403-040		CAP,E 3.3-50 SME
C615	87-010-318-080		C-CAP,S 47P-50 CH
C616	87-010-318-080		C-CAP,S 47P-50 CH
CN101	87-A60-424-010		CONN,16P V TOC-B
CN102	87-099-199-010		CONN,6P 6216 H
CN401	87-099-212-010		CONN,5P 6216 V
CN403	87-099-030-010		CONN,13P 6216H
J501	87-009-502-010		JACK,PIN 1P Y EARTH
L101	87-005-196-080		COIL,10UH
L301	87-A50-095-010		COIL,68UH RCR875D
L302	87-005-426-080		COIL,3.3UH K FLR50
L502	87-005-204-080		COIL,47UH
L503	87-005-189-080		COIL 2.7UH
L504	87-005-187-080		COIL,1.8UH
L505	87-005-204-080		COIL,47UH
L506	87-005-204-080		COIL,47UH
L507	87-005-204-080		COIL,47UH
L508	87-005-817-080		C-COIL, 33UH J FLC32
M401	87-045-305-010		MOTOR, RF-500TB DC-5V (2MA)
R130	87-022-364-080		C-RES,S 82K-1/10W F
R131	87-022-364-080		C-RES,S 82K-1/10W F
R132	87-022-364-080		C-RES,S 82K-1/10W F
R133	87-022-364-080		C-RES,S 82K-1/10W F
R134	87-022-364-080		C-RES,S 82K-1/10W F
R135	87-022-364-080		C-RES,S 82K-1/10W F
R507	87-A00-408-080		C-RES,S 2K-1/10W D
S201	87-A90-162-010		SW,SL 1-1-3 SSSU
S401	87-036-109-010		PUSH SWITCH
S402	87-036-109-010		PUSH SWITCH
W1	84-ZG1-673-010		F-CABLE,5P 1.25 210MM BLACK N
W2	85-NFT-611-110		FF-CABLE 16P-1.0
W3	84-ZG1-630-010		CABLE FFC 6P-1.25
X201	87-A70-124-080		VIB,CER 8.0MHZ
X501	87-A70-125-080		VIB,XTAL 27MHZ 50PPM
X601	87-030-270-080		VIB,XTAL 16.9344MHZ

LED C.B

LED401	87-070-200-080		LED,SLP636C-81-S-T1
LED402	87-017-350-080		LED,SEL1550CM
LED403	87-017-350-080		LED,SEL1550CM
LED404	87-070-200-080		LED,SLP636C-81-S-T1

T-T C.B

C401	87-018-214-080		CAP TC U 0.1-50F
CON401	86-NFZ-675-010		CONN,5P H 6216-11H
PS401	87-026-573-010		IC,GP1S53V

DRIVE C.B

CN3	87-009-349-010		CONN,6P H WHT PH
M20	87-045-358-010		MOT,RF-310TA 43
M21	87-045-356-010		MOT,RF-310TA 30
SW1	87-A90-042-010		SW,LEAF MSW-17310MVPO

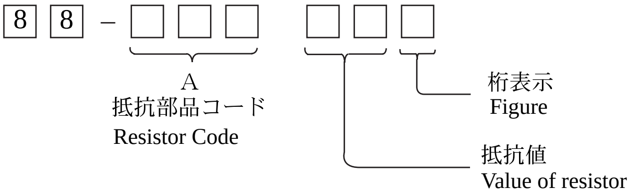
CD MOTOR C.B

CN4	87-099-210-010		CONN,5P H BLK 6216
M1	87-045-305-010		MOT,RF-500TB
SW1	87-035-110-010		SW,MICRO SPPB62
SW2	87-035-110-010		SW,MICRO SPPB62

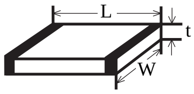
- Regarding connectors, they are not stocked as they are not the initial order items.
  The connectors are available after they are supplied from connector manufacturers upon the order is received.

○ チップ抵抗部品コード / CHIP RESISTOR PART CODE

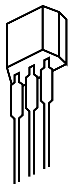
チップ抵抗部品コードの成り立ち
Chip Resistor Part Coding


8
8
–
A
抵抗部品コード
Resistor Code
桁表示
Figure
抵抗値
Value of resistor

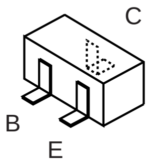
チップ抵抗
Chip resistor

容量 Wattage	種類 Type	許容誤差 Tolerance	記号 Symbol	寸法 / Diamensions (mm)				抵抗コード　:A Resistor Code : A
				外形 / Form	L	W	t	
1/16W	1608	5%	CJ		1.6	0.8	0.45	108
1/10W	2125	5%	CJ		2	1.25	0.45	118
1/8W	3216	5%	CJ		3.2	1.6	0.55	128

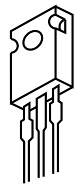
TRANSISTOR ILLUSTRATION



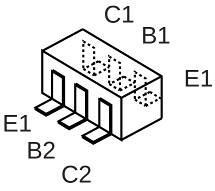
2SA933S



2SA1162
2SC2712
DTA123JK
DTA124XK
DTC124XK

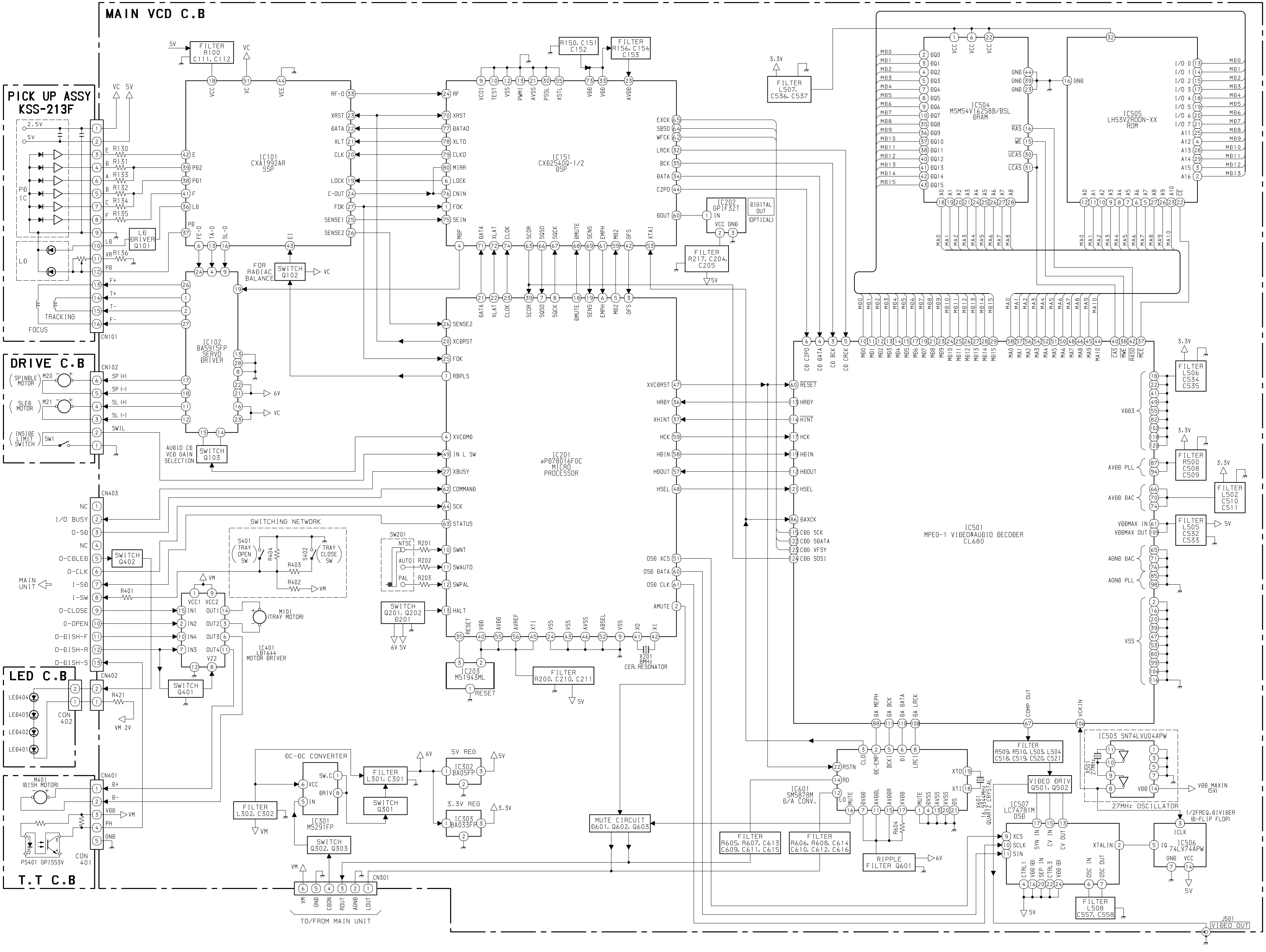


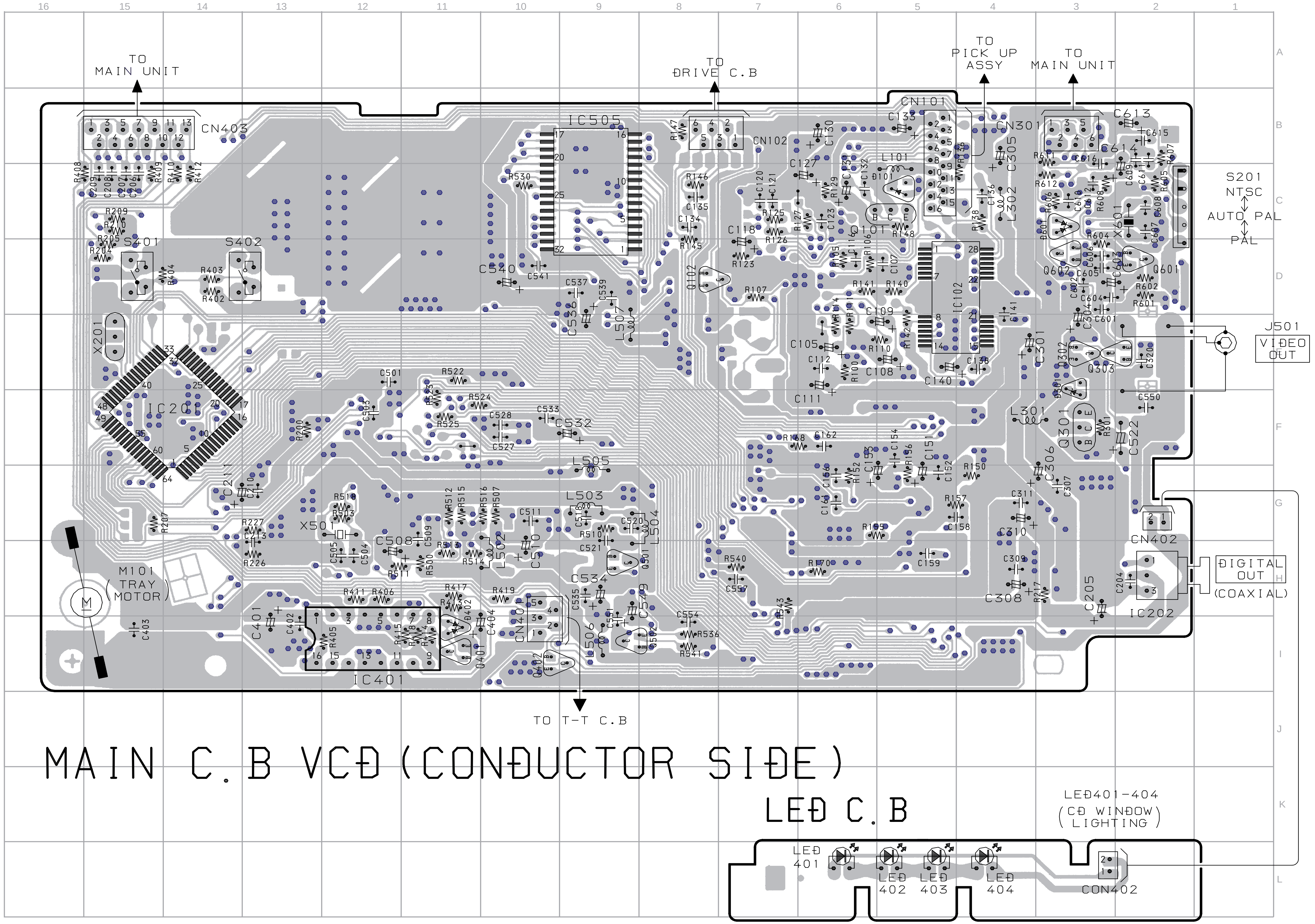
2SA1357


C1
B1
E1
E1
B2
C2

HN1C03F

BLOCK DIAGRAM


MAIN VCD C.B
PICK UP ASSY
KSS-213F
DRIVE C.B
LED C.B
T.T C.B
CN101
CN102
CN403
CN402
CN401
CN301
TRACKING
FOCUS
SPINDLE MOTOR
SLED MOTOR
INSIDE LIMIT SWITCH
LD DRIVER Q101
FILTER R100 C111, C112
IC101 CXA1992AR SSP
IC102 BA5915FP SERVO DRIVER
FOR RADIAC BALANCE
SWITCH Q102
AUDIO CD VCD GAIN SELECTION
SWITCH Q103
R150, C151 C152
FILTER R156, C154 C153
IC151 CXD2540Q-1/2 DSP
IC202 GP1F32T
DIGITAL OUT (OPTICAL)
FILTER R217, C204, C205
IC201 μPD78016FGC MICRO PROCESSOR
SWITCHING NETWORK
S401 TRAY OPEN SW
S402 TRAY CLOSE SW
SWITCH Q402
SWITCH Q401
IC401 LB1644 MOTOR DRIVER
M101 (TRAY MOTOR)
SW201
NTSC
AUTO
PAL
SWITCH Q201, Q202 D201
IC203 M51943ML
RESET
X201 8MHz CER. RESONATOR
FILTER R200, C210, C211
MAIN UNIT
DC-DC CONVERTER
IC301 M5291FP
FILTER L301, C301
SWITCH Q301
FILTER L302, C302
SWITCH Q302, Q303
5V REG
IC302 BA05FP
3.3V REG
IC303 BA033FP
MUTE CIRCUIT D601, Q602, Q603
TO/FROM MAIN UNIT
M401 (DISH MOTOR)
PS401 GP1S53V
FILTER L507, C536, C537
IC504 MSM54V16258B/BSL DRAM
IC505 LH53V2R00N-XX ROM
IC501 MPEG-1 VIDEO&AUDIO DECODER CL680
FILTER L506 C534 C535
FILTER R500 C508 C509
FILTER L502 C510 C511
FILTER L505 C532 C533
VDD3
AVDD PLL
AVDD DAC
VDDMAX IN
VDDMAX OUT
AGND DAC
AGND PLL
VSS
IC601 SM5878M D/A CONV.
X601 16.9344MHz QUARTZ CRYSTAL
FILTER R509, R510, L503, L504 C518, C519, C520, C521
VIDEO DRIV Q501, Q502
IC503 SN74LVU04APW
X501 27MHz
27MHz OSCILLATOR
IC507 LC74781M OSD
FILTER R605, R607, C613 C609, C611, C615
FILTER R606, R608, C614 C610, C612, C616
RIPPLE FILTER Q601
FILTER L508 C557, C558
1/2FREQ.DIVIDER (D-FLIP FLOP)
IC506 74LV74APW
VDD MAXIN (5V)
J501 VIDEO OUT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TO
MAIN UNIT
TO
DRIVE C.B
TO
PICK UP
ASSY
TO
MAIN UNIT
CN403
IC505
CN102
CN101
CN301
C613
S201
NTSC
AUTO PAL
PAL
S401
S402
X201
IC201
C540
C541
L101
D101
Q101
Q102
IC102
Q601
Q602
X601
J501
VIDEO
OUT
Q301
Q302
Q303
L301
L302
C522
L505
L503
L504
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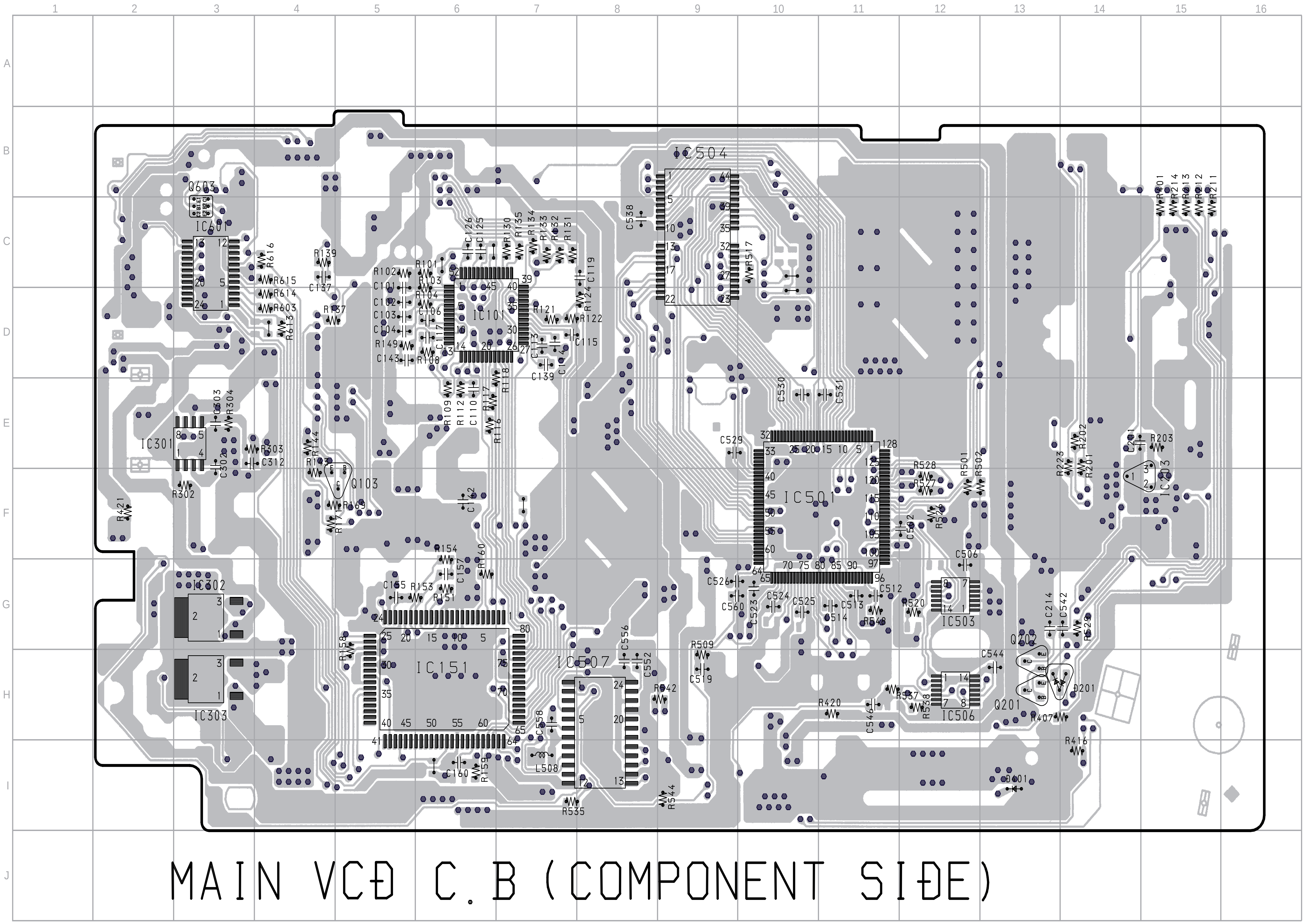
L506
L507
X501
C508
C534
C532
M101
TRAY
MOTOR
M
IC401
CN401
Q401
Q402
Q501
Q502
CN402
DIGITAL
OUT
(COAXIAL)
IC202
C205
TO T-T C.B
LED401-404
(CD WINDOW
LIGHTING)
LED
401
LED
402
LED
403
LED
404
CON402

MAIN C.B VCD (CONDUCTOR SIDE)

LED C.B



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IC601
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IC302
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Q103
IC101
IC151
IC504
IC501
IC507
IC503
IC506
Q202
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D201
D601
L508
R616
R615
R614
R603
R613
R139
C137
R137
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C117
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R143
R163
R171
R421
C112
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C556
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C519
R544
R535
C558
R420
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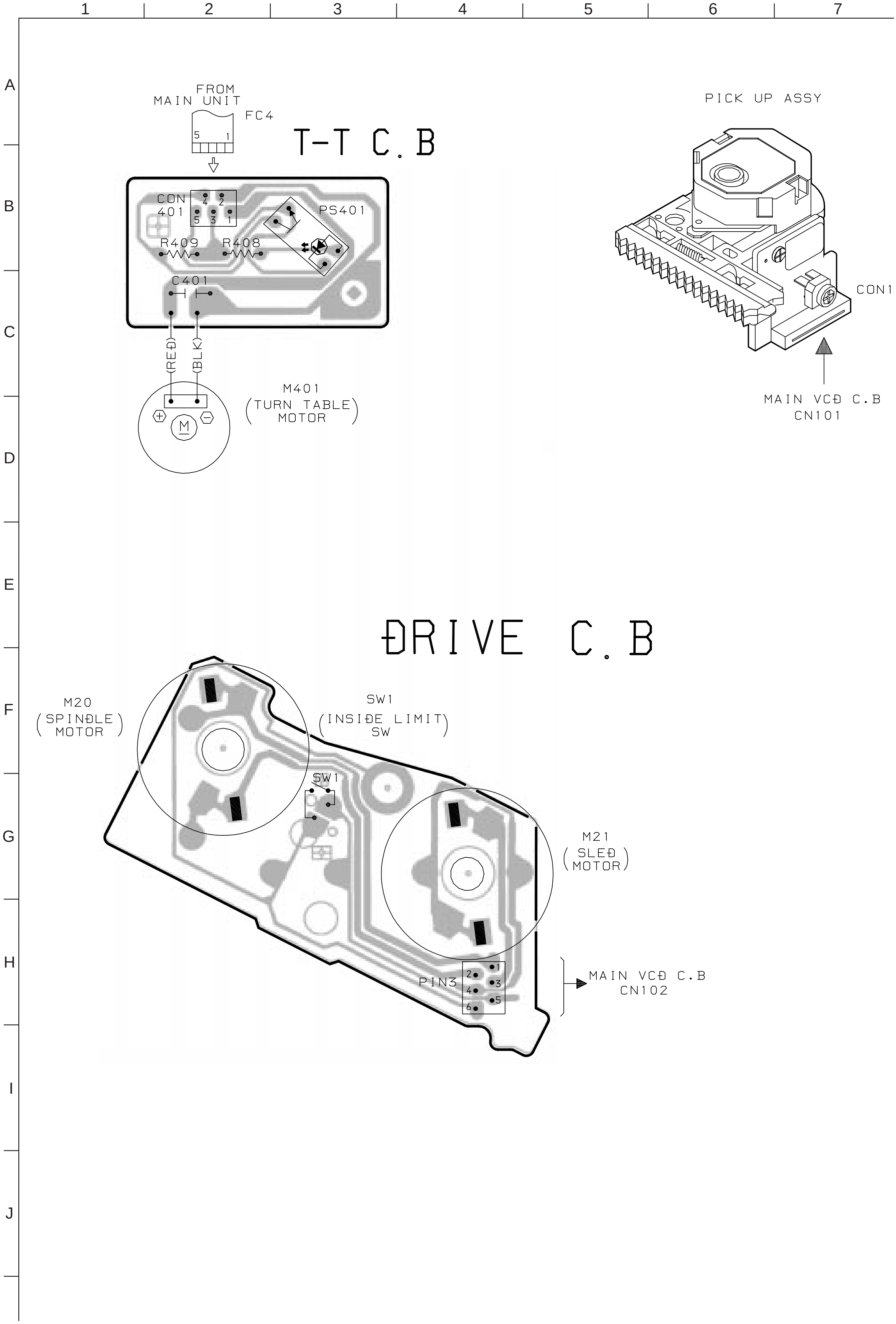
C544
C214
C542
R529
R407
R416
R223
R202
R201
C201
R203
R201
R214
R213
R212
R211

MAIN VCD C.B (COMPONENT SIDE)

WIRING-3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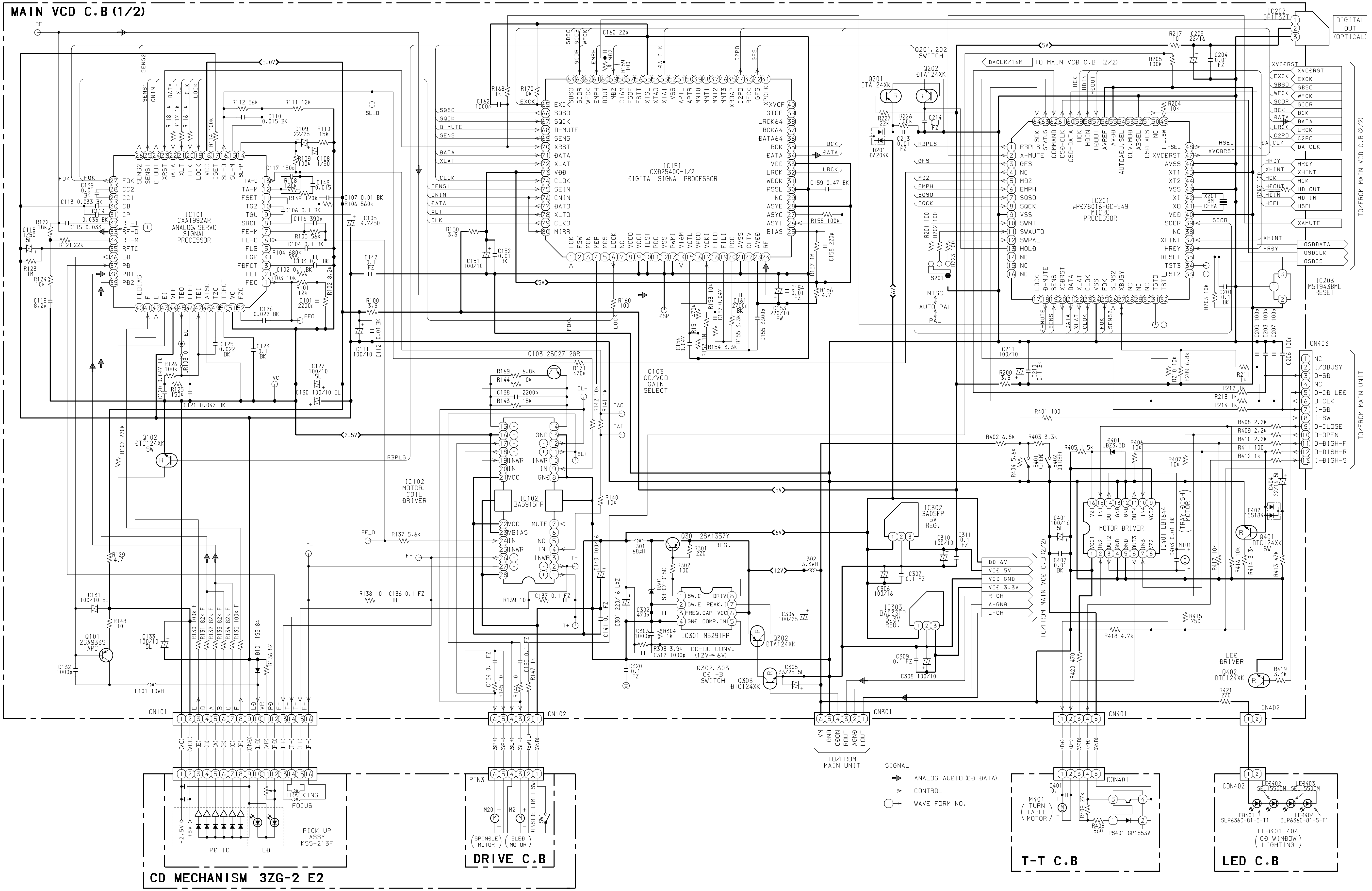
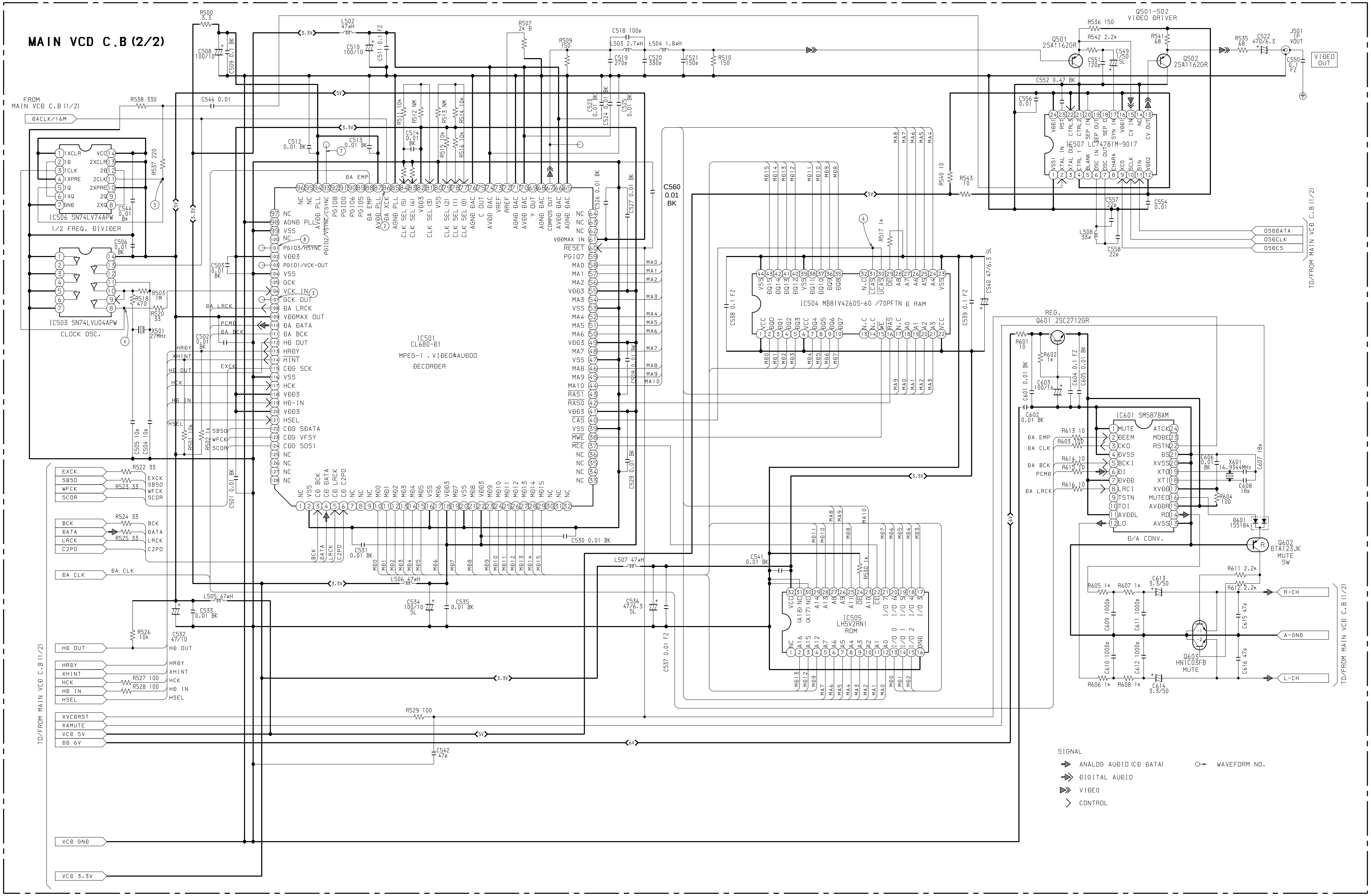
FROM MAIN UNIT
FC4
5
1
T-T C.B
CON 401
4 2
5 3 1
PS401
R409
R408
C401
(RED)
(BLK)
M401
(TURN TABLE MOTOR)
M
PICK UP ASSY
CON1
MAIN VCD C.B CN101
DRIVE C.B
M20
(SPINDLE MOTOR)
SW1
(INSIDE LIMIT SW)
SW1
M21
(SLED MOTOR)
PIN3
1 2 3 4 5 6
MAIN VCD C.B CN102

SCHEMATIC DIAGRAM-1


MAIN VCD C.B (1/2)
IC101 CXA1992AR ANALOG SERVO SIGNAL PROCESSOR
IC151 CXD2540Q-1/2 DIGITAL SIGNAL PROCESSOR
IC201 μPD78016FGC-549 MICRO PROCESSOR
IC202 GP1F32T
DIGITAL OUT (OPTICAL)
IC203 M51943BML RESET
Q201, 202 SWITCH
Q201 DTA124XK
Q202 DTA124XK
TO MAIN VCD C.B (2/2)
TO/FROM MAIN VCD C.B (2/2)
TO/FROM MAIN UNIT
IC102 MOTOR, COIL DRIVER
IC102 BA5915FP
Q103 2SC2712GR
Q103 CD/VCD GAIN SELECT
Q102 DTC124XK SW
Q101 2SA933S APC
IC301 M5291FP
DC-DC CONV. (12V→6V)
Q301 2SA1357Y REG.
Q302, 303 CD +B SWITCH
Q302 DTA124XK
Q303 DTC124XK
IC302 BA05FP 5V REG.
IC303 BA033FP 3.3V REG.
IC401 LB1644 MOTOR DRIVER
(TRAY DISH) MOTOR
Q401 DTC124XK SW
Q402 DTC124XK LED DRIVER
CN101
CN102
CN301
CN401
CN402
CN403
TO/FROM MAIN UNIT
SIGNAL
ANALOG AUDIO (CD DATA)
CONTROL
WAVE FORM NO.
TRACKING
FOCUS
PICK UP ASSY KSS-213F
PD IC
LD
CD MECHANISM 3ZG-2 E2
PIN3
M20 (SPINDLE MOTOR)
M21 (SLED MOTOR)
SW1 (INSIDE LIMIT SW)
DRIVE C.B
CON401
M401 TURN TABLE MOTOR
PS401 GP1S53V
T-T C.B
CON402
LED402 SEL1550CM
LED403 SEL1550CM
LED401 SLP636C-81-5-T1
LED404 SLP636C-81-5-T1
LED401-404 (CD WINDOW LIGHTING)
LED C.B

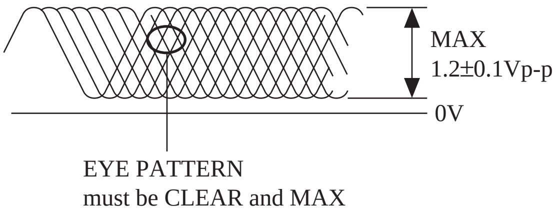
SCHEMATIC DIAGRAM-2


MAIN VCD C.B (2/2)
FROM MAIN VCD C.B (1/2)
DACLK/16M
R538 330
C546 0.01
R500 3.3
L502 47μH
C508 100/10
C509 0.1 BK
C510 100/10
C511 0.1 FZ
R507 2k D
R509 150
C518 100p
L503 2.7μH
L504 1.8μH
C519 270p
C520 330p
C521 150p
R510 150
Q501-502 VIDEO DRIVER
R536 150
R542 2.2k
R541 68
Q501 2SA1162GR
Q502 2SA1162GR
C551 120p
C549 1/50 SL
R535 68
C522 470/6.3
J501 1P VOUT
C550 0.1 FZ
VIDEO OUT
C552 0.47 BK
C556 0.01
IC507 LC74781M-9017
C557 22p
C554 0.01
L508 33μ
C558 22p
OSDDATA
OSDCLK
OSDCS
TO/FROM MAIN VCD C.B (1/2)
IC506 SN74LV74APW
1/2 FREQ. DIVIDER
IC503 SN74LVU04APW
CLOCK OSC.
R537 220
C544 0.01 BK
C506 0.01 BK
R503 1M
R518 470
R520 33
X501 27MHz
C512 0.01 BK
C513 0.01 BK
C514 0.01 BK
R511 10k
R512 NM
R513 NM
R514 10k
R515 10k
R516 10k
C523 0.01 BK
C524 0.01 BK
C525 0.01 BK
C526 0.01 BK
C527 0.01 BK
C560 0.01 BK
C503 0.01 BK
C502 0.01 BK
IC501 CL680-01
MPEG-1 VIDEO&AUDIO DECORDER
C528 0.01 BK
C529 0.01 BK
C501 0.01 BK
C530 0.01 BK
C531 0.01 BK
C505 10p
C504 10p
R501 10k
R502 1k
R540 10
R543 10
R517 1k
IC504 MB81V4260S-60 /70PFTN D RAM
C538 0.1 FZ
C539 0.1 FZ
C540 47/6.3 SL
REG. Q601 2SC2712GR
R601 10
R602 1k
C601 0.01 BK
C603 100/16
C604 0.1 FZ
C605 0.01 BK
C602 0.01 BK
IC601 SM5878AM
D/A CONV.
R613 10
R603 100
R614 10
R615 10
R616 10
C606 0.01 BK
X601 16.9344MHz
C607 18p
C608 18p
R604 100
D601 1SS184
Q602 DTA123JK MUTE SW
R611 2.2k
R612 2.2k
R605 1k
R607 1k
C613 3.3/50
C609 1000p
C611 1000p
C615 47p
Q603 HN1C03FB MUTE
C610 1000p
C612 1000p
C616 47p
R606 1k
R608 1k
C614 3.3/50
R-CH
A-GND
L-CH
IC505 LH5V2RN1 ROM
C541 0.01 BK
L507 47μH
R530 1k
C536 47/6.3 SL
C537 0.01 FZ
L506 47μH
C534 100/10 SL
C535 0.01 BK
L505 47μH
C532 47/10
C533 0.01 BK
R526 10k
R522 33
R523 33
R524 33
R525 33
R527 100
R528 100
R529 100
C542 47p
EXCK
SBSO
WFCK
SCOR
BCK
DATA
LRCK
C2PO
DA CLK
HD OUT
HRDY
XHINT
HCK
HD IN
HSEL
XVCDRST
XAMUTE
VCD 5V
DD 6V
VCD GND
VCD 3.3V
3.3V
5V
6V
SIGNAL
ANALOG AUDIO (CD DATA)
DIGITAL AUDIO
VIDEO
CONTROL
WAVEFORM NO.

WAVE FORM

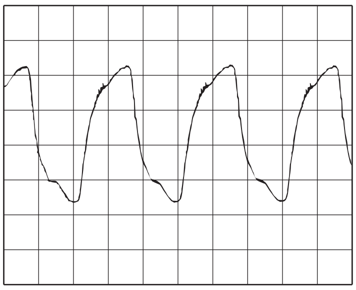
①

IC101 Pin ㉝ (RF-O)
VOLT/DIV: 200mV
TIME/DIV: 0.5µS



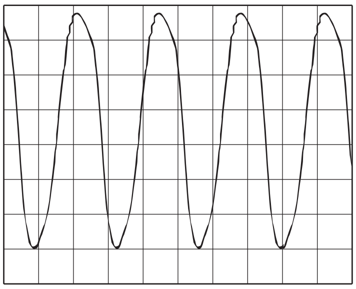
②

IC501 Pin (86) DA XCK
16.93MHz
VOLT/DIV: 1V
TIME/DIV: 20nS



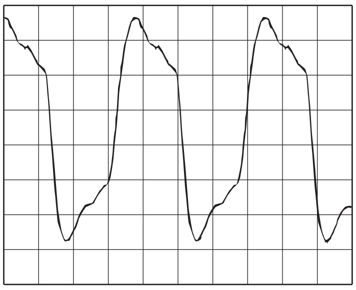
③

IC501 Pin (107) GCK OUT
42.3MHz
VOLT/DIV: 1V
TIME/DIV: 10nS



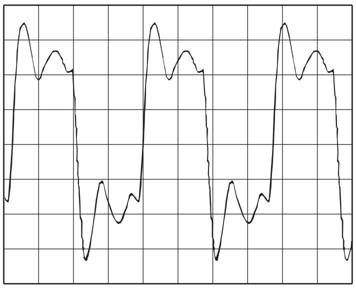
④

IC503 Pin ⑧ 33 VCK
27MHz±1.35kHz
VOLT/DIV: 1V
TIME/DIV: 10nS



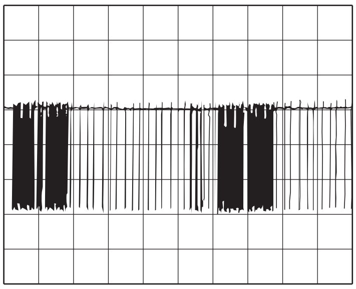
⑤

IC506 Pin ⑪ OSD CLK
13.5MHz±675Hz
VOLT/DIV: 1V
TIME/DIV: 20nS



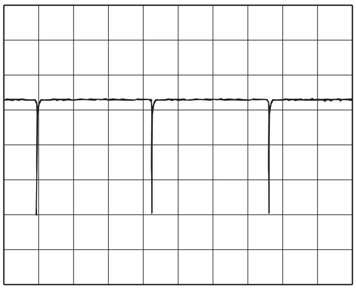
⑥

IC504 Pin ㉚ $\overline{\text{UCAS}}$
(Pin ㉛ $\overline{\text{LCAS}}$)
VOLT/DIV: 1V
TIME/DIV: 2µS



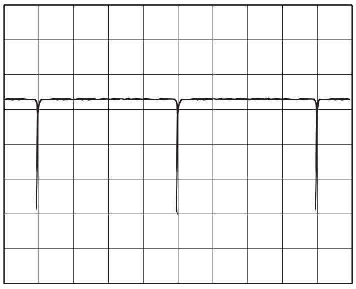
⑦

IC501 Pin (93) $\overline{\text{VSync}}$
NTSC
VOLT/DIV: 1V
TIME/DIV: 5mS



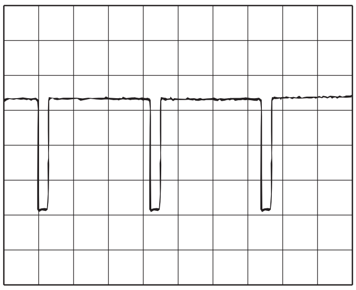
⑧

IC501 Pin (93) $\overline{\text{VSync}}$
PAL
VOLT/DIV: 1V
TIME/DIV: 5mS

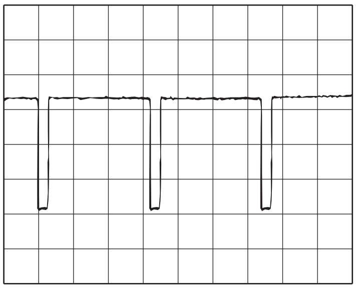


⑧

IC501 Pin (101) $\overline{\text{HSync}}$
PAL
VOLT/DIV: 1V
TIME/DIV: 20µS



IC501 Pin (101) $\overline{\text{HSync}}$
NTSC
VOLT/DIV: 1V
TIME/DIV: 20µS



IC DESCRIPTION

IC, CXA1992AR

Pin No.	Pin Name	I/O	Description
1	FEO	O	Output terminal for focus error amplifier. Internally connected to window comparator input for bias condition.
2	FEI	I	Input terminal for focus error.
3	FDFCT	I	Capacitor connection terminal for time constant used when there is defect.
4	FGD	I	This pin is connected to GND via capacitor when high frequency gain of the focus servo is attenuated.
5	FLB	I	This is a pin where the time constant is externally connected to raise the low frequency gain of the focus servo.
6	FE_O	O	Focus drive output.
7	FEM	I	Focus amplifier inverted input pin.
8	SRCH	I	This is a pin where the time constant is externally connected to generate the focus search waveform.
9	TGU	I	This is a pin where the selection time constant is externally connected to set the tracking servo the high frequency gain.
10	TG2	I	This is a pin where the selection time constant is externally connected to set the tracking high frequency gain.
11	FSET	I	Pin for setting peak of the phase compensator of the focus tracking.
12	TA_M	I	Tracking amplifier inverted input pin.
13	TA_O	O	Tracking drive output.
14	SL_P	I	Sled amplifier non-inverted input pin.
15	SL_M	I	Sled amplifier inverted input pin.
16	SL_O	O	Sled drive output.
17	ISET	I	The current which determines height of the focus search, track jump and sled kick is input with external resistance connected.
18	Vcc	I	Power supply.
19	LOCK	I	“L” setting starts sled disorder-prevention circuit. (Not pull-up resistance)
20	CLK	I	Clock input for serial data transfer from CPU. (No pull-up resistance)
21	XLT	I	Latch input from CPU. (No pull-up resistance)
22	DATA	I	Serial data input from CPU. (No pull-up resistance)
23	XRST	I	Reset system at “L” setting. (No pull-up resistance)
24	C_OUT	O	Signal output for track number counting.
25	SENS1	O	FZC, DFCT1, TZC, BALH, TGH, FOH, or ATSC is output depending on the command from CPU.
26	SENS2	O	DFCT2, MIRR, BALL, TGL or FOL is output depending on the command from CPU.
27	FOK	O	Output terminal for focus OK comparator.
28	CC2	I	Input pin where the DEFECT bottom hold output is capacitance coupled.
29	CC1	O	DEFECT bottom-hold output terminal. Internally connected to interruption comparator input.
30	CB	I	Connection terminal for DEFECT bottom-hold capacitor.
31	CP	I	Connection terminal for MIRR hold-capacitor. Anti-reverse input terminal for MIRR comparator.

Pin No.	Pin Name	I/O	Description
32	RF_I	I	Input terminal by capacity combination of RF summing amplifier.
33	RF_O	O	Output terminal of RF summing amplifier. Checkpoint of Eye pattern.
34	RF_M	I	Anti-reverse input terminal for RF summing amplifier. The gain of RF amplifier is decided by the connection resistance between RF_M and RFO terminals.
35	RFTC	I	This is a pin where the selection time constant is externally connected to control the RF level.
36	LD	O	APC amplifier output terminal.
37	PD	I	APC amplifier input terminal.
38, 39	PD1, PD2	I	RFI-V amplifier inverted input pin. These pins are connected to the A+C and B+C pins of the optical pickup, receiving by currents input.
40	FEBIAS	I/O	Bias adjustment pin of the focus error amplifier.
41, 42	F, E	I	F and EIV amplifier inverted input pins. These pins are connected to the F and E of the optical pickup, receiving by current input.
43	EI	—	Gain adjustment pin of the I-V amplifier E. (When not in use of BAL automatic adjustment)
44	VEE	—	GND connection pin.
45	TEO	O	Output terminal for tacking-error amplifier. Output E-F signal.
46	LPFI	I	BAL adjustment comparator input pin. (Input through LPF from TEO)
47	TEI	I	Input terminal for tracking error.
48	ATSC	I	Window-comparator input terminal for detecting ATSC.
49	TZC	I	Input terminal for tracking-zero cross comparator.
50	TDFCT	I	Capacitor connection pin for the time constant used when there is defect.
51	VC	O	Output terminal for DC voltage reduced to half of VCC+VEE.
52	FZC	I	Input terminal for focus-zero cross comparator.

IC, CXD2540Q

Pin No.	Pin Name	I/O	Description
1	FOK	I	Focus OK input. Used for SENS output and the servo auto sequencer.
2	FSW	O	Spindle motor output filter switching output.
3	MON	O	Spindle motor on/off control output.
4	MDP	O	Spindle motor servo control.
5	MDS	O	
6	LOCK	O	High, when sampled value of GFS at 460Hz is high. Low, when sampled value of GFS at 460Hz is low by 8 times successively.
7	NC		
8	VCOO	O	Analog EFM PLL oscillation circuit output.
9	VCOI	I	Analog EFM PLL oscillation circuit input. fLOCK=8.6436MHz.
10	TEST	I	TEST pin.
11	PDO	O	Analog EFM PLL charge pump output.
12	VSS		GND.
13	PWMI	I	Spindle motor external control input.
14	V16M	O	VCO2 oscillation output for the wide-band EFM PLL.
15	VCTL	I	VCO2 control voltage input for the wide-band EFM PLL.
16	VPCO	O	Wide-band EFM PLL charge pump output.
17	VCKI	I	VCO2 oscillation input for the wide-band EFM PLL.
18	FILO	O	Multiplier PLL (slave=digital PLL) filter output.
19	FILI	I	Multiplier PLL filter input.
20	PCO	O	Multiplier PLL charge pump output.
21	AVSS		Analog GND.
22	CLTV	I	Multiplier VCO1 control voltage input.
23	AVDD		Analog power supply (5V).
24	RF	I	EFM signal input.
25	BIAS	I	Constant current input of the asymmetry circuit.
26	ASYI	I	Asymmetry comparator voltage input.
27	ASYO	O	EFM full-swing output.
28	ASYE	I	Low: asymmetry circuit off; high: asymmetry circuit on.
29	NC		
30	PSSL	I	Audio data output mode switching input. Low: serial output; high: parallel output.
31	WDCK	O	D/A interface for 48-bit slot. Word clock f=2Fs.
32	LRCK	O	D/A interface for 48-bit slot. LR clock f=Fs.
33	VDD		Power supply (5V).
34	DA16	O	DA16 (MSB) output when PSSL=1. 48-bit slot serial data (two’s complement, MSB first) when PSSL=0.
35	DA15	O	DA15 output when PSSL=1. 48-bit slot bit clock when PSSL=0.
36	DA14	O	DA14 output when PSSL=1. 64-bit slot serial data (two’s complement, LSB first) when PSSL=0.
37	DA13	O	DA13 output when PSSL=1. 64-bit slot bit clock when PSSL=0.
38	DA12	O	DA12 output when PSSL=1. 64-bit slot LR clock when PSSL=0.

Pin No.	Pin Name	I/O	Description
39	DA11	O	DA11 output when PSSL=1. GTOP output when PSSL=0.
40	DA10	O	DA10 output when PSSL=1. XUGF output when PSSL=0.
41	DA09	O	DA09 output when PSSL=1. XPLCK output when PSSL=0.
42	DA08	O	DA08 output when PSSL=1. GFS output when PSSL=0.
43	DA07	O	DA07 output when PSSL=1. RFCK output when PSSL=0.
44	DA06	O	DA06 output when PSSL=1. C2PO output when PSSL=0.
45	DA05	O	DA05 output when PSSL=1. XRAOF output when PSSL=0.
46	DA04	O	DA04 output when PSSL=1. MNT3 output when PSSL=0.
47	DA03	O	DA03 output when PSSL=1. MNT2 output when PSSL=0.
48	DA02	O	DA02 output when PSSL=1. MNT1 output when PSSL=0.
49	DA01	O	DA01 output when PSSL=1. MNT0 output when PSSL=0.
50	APTR	O	Aperture compensation control output. This pin outputs a high signal when the right channel is used.
51	APTL	O	Aperture compensation control output. This pin outputs a high signal when the left channel is used.
52	VSS		GND.
53	XTAI	I	Crystal oscillation circuit input.
54	XTAO	O	Crystal oscillation circuit output.
55	XTSL	I	Crystal selector input.
56	FSTT	O	2/3 frequency divider output for Pins 53 and 54.
57	FSOF	O	1/4 frequency divider output for Pins 53 and 54.
58	C16M	O	16.9344MHz output. (V16M output in CLV-W and CAV-W modes)
59	MD2	I	Digital-out on/off control. High: on; low: off
60	DOUT	O	Digital-out output.
61	EMPH	O	Outputs a high signal when the playback disc has emphasis, and a low signal when there is no emphasis.
62	WFCK	I	WFCK (write frame clock) output.
63	SCOR	O	Outputs a high signal when either subcode sync S0 or S1 is detected.
64	SBSO	O	Sub P to W serial output.
65	EXCK	I	SBSO readout clock input.
66	SQSO	O	Sub Q 80-bit and PCM peak, level metter and internal status outputs.
67	SQCK	I	SQSO readout clock input.
68	MUTE	I	High: mute; low: release
69	SENS	—	SENS output to CPU.
70	XRST	I	System reset. Reset when low.
71	DATA	O	Serial data input from CPU.
72	XLAT	O	Latch input from CPU. Serial data is latched at the falling edge.
73	VDD		Power supply (5V).
74	CLOK	O	Serial data transfer clock input from CPU.
75	SEIN	I	SENS input from SSP.
76	CNIN	I	Track jump count signal input.

Pin No.	Pin Name	I/O	Description
77	DATO	O	Serial data output to SSP.
78	XLTO	O	Serial data latch output to SSP. Latched at the falling edge.
79	CLKO	O	Serial data transfer clock output to SSP.
80	MIRR	I	Mirror signal input. Used when the number of tracks is 128 or more for the 2N-track jump and M track move of the auto sequencer.

Notes)

- The 64-bit slot is an LSB first, two's complement output, and the 48-bit slot is an MSB first, two's complement output.
- GTOP is used to monitor the frame sync protection status. (High: sync protection window open.)
- XUGF is the negative pulse for the frame sync obtained from the EFM signal. It is the signal before sync protection.
- XPLCK is the inverse of the EFM PLL clock. The PLL is designed so that the falling edge and the EFM signal transition point coincide.
- GFS goes high when the frame sync and the insertion protection timing match.
- RFCK is derived from the crystal accuracy, and has a cycle of 136µ.
- C2PO represents the data error status.
- XRAOF is generated when the 32K RAM exceeds the ±28F jitter margin.

IC, CL680

Pin No.	Pin Name	I/O	Description
1	NC	—	No connection.
2	VSS	—	GND.
3	CD BCK	I	Bit clock input from CD DSP.
4	CD DATA	I	Data input from CD DSP.
5	CD LRCK	I	LRCK input from CD DSP.
6	CD C2PO	I	C2 pointer input from CD DSP.
7-9	NC	—	No connection.
10-15	MD0-MD5	I/O	DRAM/ROM interface. (DATA)
16	VSS	—	Ground.
17	MD6	I/O	DRAM/ROM interface. (DATA)
18	VDD3	—	Power supply 3.3V.
19	MD7	I/O	DRAM/ROM interface. (DATA)
20	VSS	—	Ground.
21	MD8	I/O	DRAM/ROM interface. (DATA)
22	VDD3	—	Power supply 3.3V.
23-29	MD9-MD15	I/O	DRAM/ROM interface. (DATA)
30-36	NC	—	No connection.
37	$\overline{\text{MCE}}$	—	ROM chip enable.
38	$\overline{\text{MWE}}$	O	DRAM write enable.
39	VSS	—	Ground.
40	$\overline{\text{CAS}}$	O	DRAM/ROM interface.
41	VDD3	—	Power supply 3.3V.
42	$\overline{\text{RASO}}$	O	DRAM/ROM interface.
43	$\overline{\text{RASI}}$	O	
44-46	MA10-MA8	O	DRAM/ROM interface. (Address)
47	VSS	—	Ground.
48	MA7	O	DRAM/ROM interface. (Address)
49	VDD3	—	Power supply 3.3V.
50-52	MA6-MA4	O	DRAM/ROM interface. (Address)
53	VSS	—	Ground.
54	MA3	O	DRAM/ROM interface. (Address)
55	VDD3	—	Power supply 3.3V.
56-58	MA2-MA0	O	DRAM/ROM interface. (Address)
59	PGIO7	I/O	Programmable I/O.
60	$\overline{\text{RESET}}$	I	Reset input.
61	VDD MAX IN	—	Power supply - VDDMAX. (5.0V)
62-64	NC	—	No connection.
65	AGND DAC	—	Analog ground.
66	A DAC	—	Analog power supply (DAC) : 3.3V.
67	COMP OUT	O	Composite out.
68	AGND DAC	—	Analog ground.

Pin No.	Pin Name	I/O	Description
69	Y OUT	O	Video signal “Y” OUT.
70	AVDD DAC	—	Analog power supply (DAC) 3.3V.
71	AGND DAC	—	Analog ground.
72	R REF	I	Reference resistor input.
73	V REF	I	Voltage reference input.
74	AVDD DAC	—	Analog power supply (DAC) : 3.3V.
75	C OUT	O	Video signal “C” out.
76	AGND DAC	—	Analog ground.
77-79	CLK SEL0-2	I	Clock selection input.
80	VSS	—	Ground.
81	CLK SEL3	I	Clock selection input.
82	VDD3	—	Power supply 3.3V.
83, 84	CLK SEL4, 5	I	Clock selection input.
85	AGND PLL	—	Analog ground.
86	DA XCK	I	DA XCK (16.933MHz) input.
87	AVDD PLL	—	Analog power supply 3.3V.
88	DA EMP	O	DAC-emphasis output.
89, 90	PGIO5, O6	I/O	Programmable I/O.
91	PGIO0	I/O	
92	PGIO8	I/O	
93	$\overline{\text{VSYNC}}$/$\overline{\text{CSYNC}}$	O	$\overline{\text{VSYNC}}$/$\overline{\text{CSYNC}}$ output.
94	AVDD PLL	—	Analog power supply (PLL) 3.3V.
95	VID_DAC_CK	O	Video DAC clock.
96	PROC_CK	O	Processor clock.
97	AUD_XCK	O	Audio XCK.
98	AGND PLL	—	Analog ground.
99	VSS	—	Ground.
100	NC	—	No connection.
101	$\overline{\text{HSYNC}}$	O	$\overline{\text{HSYNC}}$ output.
102	VDD3	—	Power supply 3.3V.
103	VCK OUT	O	VCK out.
104	VSS	—	Ground.
105	GCK	I	Global clock signal input. (42.3MHz)
106	VCK	I	Video clock signal input. (27.0MHz)
107	GCK OUT	O	Global clock signal output. (27.0MHz)
108	DA LRCK	O	DAC-LRCK output.
109	VDD MAX OUT	—	Power supply (VDD MAX) : 5.0V.
110	DA DATA	O	DAC-PCM data output.
111	DA BCK	O	DAC-BIT clock output.
112	HD OUT	O	Micon interface. (Data out)
113	HRDY	O	Micon interface. (Host ready)

Pin No.	Pin Name	I/O	Description
114	$\overline{\text{HINT}}$	O	Micon interface. (Host interrupt)
115	CDG SCK	I	CD-G serial clock input.
116	VSS	—	Ground.
117	HCK	I	Micon interface. (Host clock)
118	VDD3	—	Power supply 3.3V.
119	HD IN	I	Micon interface. (Host data in)
120	VDD3	—	Power supply 3.3V.
121	HSEL	I	Micon interface. (Host select in)
122	CDG DATA	I	CD-G data input.
123	CDG VFSY	I	CD-G VFSY input.
124	CDG SOSI	I	CD-G SOSI input.
125	DSP-XCK	O	DSP-XCK output.
126-128	NC	—	No connection.

IC, LC74781M

Pin No.	Pin Name	I/O	Description
1	VSS1	—	GND connection terminal. (Digital ground terminal).
2	Xtal IN	I	External X’tal and capacitor for internal sync generator, or the external clock are connected to this terminal. (2fsc or 4fsc).
3	Xtal OUT	O	
4	CTRL1	I	Either the external clock input mode or the X’tal generator mode is selected by this selector terminal. L: X’tal generator mode, H: External clock input.
5	BLANK	O	Blank signal (character and the green ORed signal) is output from this terminal. (MODE 0: composite sync signal is output at H.) When reset ($\overline{\text{RST}}$ terminal = L), the X’tal clock signal is output. (It is not output when reset by the reset command).
6	OSC IN	I	External coil and capacitor for the character output dot clock generator are connected to this terminal.
7	OSC OUT	O	
8	CHARA	O	The character signal is output from this terminal. (MOD 0: when H, the external sync signal identification signal is output from this terminal. This output signal tells whether the external sync signal is present or not. When external sync signal is present, H is output.) When reset ($\overline{\text{RST}}$ terminal = L), the dot clock signal (LC oscillator) is output. (It is not output when reset by the reset command).
9	$\overline{\text{CS}}$	I	Enable signal for the serial data input is input to this terminal. The serial data input is enabled at L. Pull-up resistor is built-in. (Hysteresis input).
10	SCLK	I	Clock of the serial data input is input to this terminal. Pull-up resistor is built-in. (Hysteresis input).
11	SIN	I	Serial data input terminal. Pull-up resistor is built-in. (Hysteresis input).
12	VDD2	—	Power supply for the composite video signal level adjustment. (Analog power supply).
13	CV OUT	O	Composite video signal output terminal.
14	NC	—	Connected to GND or not connected.
15	CV IN	I	Composite video signal input terminal.
16	VDD1	—	Power supply (+5V digital power supply).
17	SYN IN	I	Video signal for the internal sync separator circuit is input to this terminal. (When the internal sync separator circuit is not used, the horizontal sync signal or composite sync signal is input to this terminal).
18	SEP C	—	Internal sync separator circuit bias voltage monitoring terminal.
19	SEP OUT	O	The composite sync output signal of the internal sync separator circuit is output from this terminal. (H: MOD 1. H: during internal sync mode. L: during external sync mode.) (When internal sync separator circuit is not used, the SYN IN input signal is output from this terminal).
20	SEP IN	I	The output signal of the SEP OUT terminal is integrated so that the vertical sync signal is input to this terminal. An integrator circuit must be connected between the SEP OUT terminal and this terminal. When this terminal is not used, it must be connected to VDD1.
21	CTRL2	I	When selecting any of the NTSC or PAL or PAL-M or PAL-N system, the pin setting has priority. When L, the NTSC system is selected after resetting. Selection of either NTSC or PAL or PAL-M or PAL-N system by the command becomes effective. H: PAL-M system.

Pin No.	Pin Name	I/O	Description
22	CTRL3	I	Controls whether or not to input the $\overline{\text{VSYNC}}$ signal to the SEPIN input. L: to input the $\overline{\text{VSYNC}}$ signal. H: not to input the $\overline{\text{VSYNC}}$ signal.
23	$\overline{\text{RST}}$	I	System reset input terminal. Pull-up resistor is built-in. (Hysteresis input).
24	VDD1	—	Power supply. (+5V digital power supply).

IC, µPD78016FGC

Pin No.	Pin Name	I/O	Description
1	RBPLS	O	RADIAL BALANCE PLUS.
2	AMUTE	O	AUDIO ANALOG MUTE (H=MUTE ON).
3	GFS	I	GFS.
4	XVCDMD	I	AUDIO/VIDEO CD MODE (L=VCD=SPINDLE GAIN UP).
5	MD2	O	DOUT MUTE CONT.
6	EMPH	I	EMPHASIS.
7	SQSO	I	SQDATA FROM CD.
8	SQCK	O	SQCLK TO CD.
9	VSS	—	GND.
10	SWNT	I	SW TV OUT MODE (L=NTSC).
11	SWAUTO	I	SW TV OUT MODE (L=NTSC/PAL AUTO).
12	SWPAL	I	SW TV OUT MODE (L=PAL).
13	EMERG	I	POWER EMERGENCY STOP (L*3sec=STOP).
14	NC	—	Nou used.
15	LPCSEL	I	“LPC ON/OFF (H=ON, NORMAL)”.
16	NC	—	Nou used.
17	LOCK	O	GFS (FRAME SYNC) LOCK (NO USE=H).
18	DMUTE	O	DIGITAL DATA OUT MUTE.
19	SENS	I	DSP SENS1 FROM CD.
20	XCDRST	O	CD RESET.
21	DATA	O	DATA TO CD.
22	XLAT	O	XLT TO CD.
23	CLOK	O	CLK TO CD.
24	VSS	—	GND.
25	FOK	I	FOCUS OK.
26	SENS2	I	SSP SENS2 FROM CD.
27	XBUSY	I/O	READY/BUSY I/O TO HOST OD.
28	NC	—	Nou used.
29	NC	—	
30	NC	—	
31	TST0	I/O	CHECK LAND.
32	TST1	I/O	
33	TST2	I/O	
34	TST3	I/O	
35	RESET	I	RESET.
36	HRDY	I	HRDY FROM CL680.
37	XHINT	I	HINT FROM CL680.
38	NC	—	Nou used.
39	SCOR	I	SCOR FROM CD.
40	VDD	—	5.0VDD.
41	XO	O	8.0MHz CERALOCK.

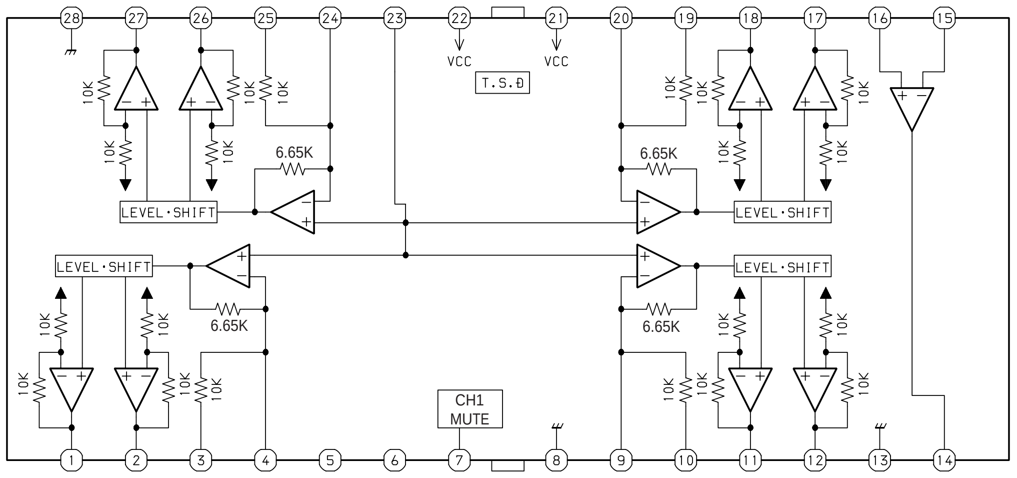
Pin No.	Pin Name	I/O	Description
42	XI	I	8.0MHz CERALOCK.
43	VSS	—	GND.
44	XT2	—	Nou used.
45	XT1	I	5.0VDD.
46	AVSS	—	GND.
47	XMPGRST	O	MPEG BLOCK IC RESET.
48	HSEL	O	ADDRESS/DATA SEL TO CL680.
49	INLSW	I	INSIDE LIMIT SW .
50	NC	—	Nou used.
51	OSDXCS	O	OSD CHIP SELECT.
52	ABSEL	I	CXA1992A/B SELECT (L=CXA1992A).
53	CLVSEL	I	CLV MODE SELECT (H=CLV-N).
54	AADSEL	I	AUTO ADJUST SELECT (H=AUTO ON).
55	AVDD	—	5.0VDD.
56	AVREF	—	
57	HDOUT	I	HD-OUT FROM CL680.
58	HDIN	O	HD-IN TO CL680.
59	HCK	O	HCK TO CL680.
60	OSDDATA	O	OSD DATA.
61	OSDCLK	O	OSD CLOCK.
62	COMMAND	I	COMMAND FROM HOST .
63	STATUS	O	STATUS TO HOST.
64	SCK	I	SCK FROM HOST.

IC, SM5878M

Pin No.	Pin Name	I/O	Description
1	MUTE	I	MODE = H: Soft mute ON/OFF terminal. (Mute at H). MODE = L: Attenuator level DOWN/UP terminal. (DOWN at H).
2	DEEM	I	De-emphasis ON/OFF terminal. (De-emphasis ON at H).
3	CKO	O	Oscillator clock output. (16.9344 MHz).
4	DVSS	—	Digital VSS terminal.
5	BCKI	I	Bit clock input terminal.
6	DI	I	Serial data input terminal.
7	DVDD	—	Digital VDD terminal.
8	LRCI	I	Sample rate clock (fs) input terminal. (H = L ch/L = R ch).
9	TSTN	I	Test input. (“H” or open during normal operation)
10	TO1	O	Test output 1. (Normally low level output).
11	AVDDL	—	Analog VDD terminal. (For L ch).
12	LO	O	Left channel analog output terminal.
13	AVSS	—	Analog VSS terminal.
14	RO	O	Right channel analog output terminal.
15	AVDDR	—	Analog VDD terminal. (For R ch).
16	MUTEO	O	Infinity zero detection output.
17	XVDD	—	X’tal system VDD terminal.
18	XTI	I	X’tal oscillator terminal. (Or external clock input terminal of 16.9344 MHz).
19	XTO	O	X’tal oscillator terminal.
20	XVSS	—	X’tal system VSS terminal.
21	DS	I	Double-speed/normal playback selection. (Double-speed at H).
22	RSTN	I	Reset terminal. (Reset at L).
23	MODE	I	Soft mute/Attenuator mode selection. (Soft mute at H).
24	ATCK	I	Attenuator level setup clock (Ignored when MODE = H).

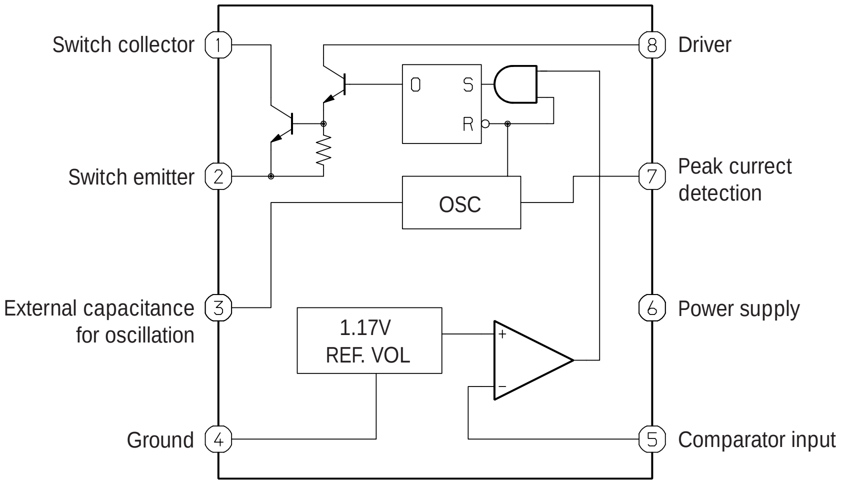
IC BLOCK DIAGRAM

IC, BA5915FP

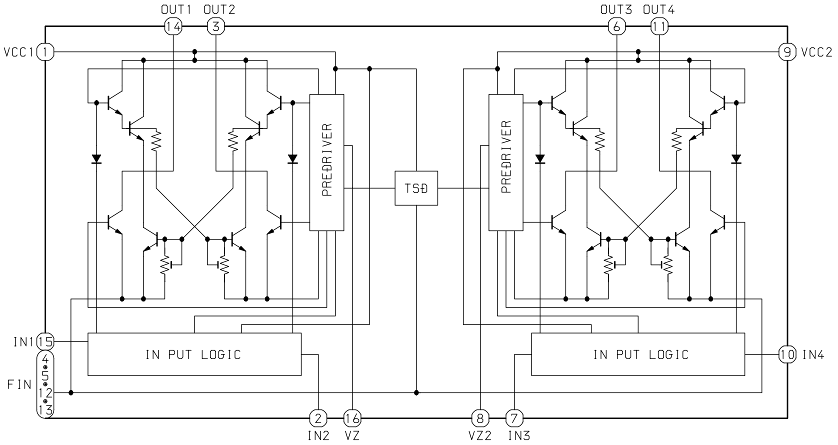

28
27
26
25
24
23
22
21
20
19
18
17
16
15
VCC
VCC
T.S.D
10K
6.65K
LEVEL·SHIFT
CH1
MUTE
1
2
3
4
5
6
7
8
9
10
11
12
13
14

T.S.D: Thermal shut-down
Resistors are in units of Ω.

IC, M5291FP


Switch collector
Switch emitter
External capacitance for oscillation
Ground
Driver
Peak currect detection
Power supply
Comparator input
1
2
3
4
5
6
7
8
O
S
R
OSC
1.17V
REF. VOL
+
−

IC, LB1644


OUT1
OUT2
OUT3
OUT4
14
3
6
11
VCC1
1
9
VCC2
PREDRIVER
TSD
PREDRIVER
IN1
15
FIN
4
5
12
13
IN PUT LOGIC
IN PUT LOGIC
10
IN4
2
16
8
7
IN2
VZ
VZ2
IN3

TRUH TABLE

IN1	IN2	OUT1	OUT2	IN3	IN4	OUT3	OUT4
0	0	L	L	0	0	L	L
1	0	H	L	1	0	H	L
0	1	L	H	0	1	L	H
1	1	L	L	1	1	L	L

INPUT			OUTPUT				MODE	
IN1	IN2.3	IN4	OUT1	OUT2	OUT3	OUT4	M1	M2
0	0	0	L	L	L	L	BRAKE	BRAKE
1	0	0	H	L	L	L	FF/REW	BRAKE
0	1	1	L	H	L	L	REW/FF	BRAKE
1	1	0	L	L	H	L	BRAKE	FF/REW
0	0	1	L	L	L	H	BRAKE	REW/FF
1	1	1	L	L	L	L	BRAKE	BRAKE

TEST MODE

1. How to Activate CD Test Mode
   Insert the AC plug while pressing the function CD button.
   All FL display tubes will light up, and the test mode will be activated.

2. How to Cancel CD Test Mode
   Either one of the following operations will cancel the CD test mode.
   - Press the function button. (except CD function button)
   - Press the power switch button.
   - Disconnect the AC plug

3. CD Test Mode Functions
   When test mode is activated, the following mode functions from No.1 to No.5 can be used by pressing the operation keys.

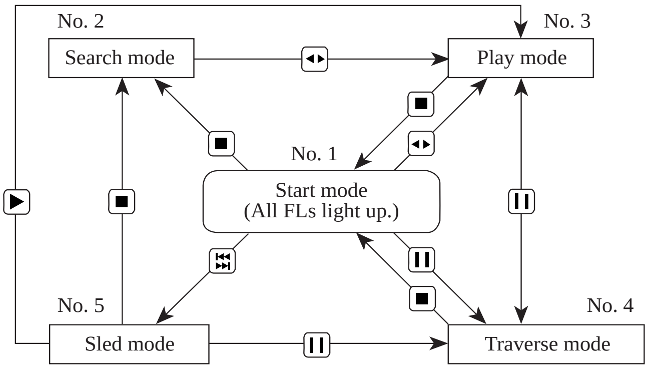
Mode/No.	Operation	FL display	Operation	Contents
Start mode No.1	Activation	TEST□□ □□ □□ Flashes repeatdly	• Test mode is activated. • CD block power is ON.	• Test mode
Search mode No.2	■ key	CD- -	• Continual focus search (The pickup lens repeats the full-swing up-down motion.) * Avoid continual searches that last for more than 10 minutes. * NOTE 1	FOCUS SERVO • Check focus search waveform • Check focus error waveform (FOK/FZC are not monitored in the search mode)
Play mode No.3	◀▶key	CD11	• Normal playback • Focus search is continued if TOC cannot be read. * NOTE 1	FOCUS SERVO/TRACKING SERVO CLV SERVO/SLED SERVO Check FOK/FZC
Traverse mode No.4	❚❚ key	CD11	• During normal disc playback Press once; tracking servo OFF Press twice; tracking servo ON * NOTE 2	TRACKING SERVO ON/OFF Tracking balance (traverse) check
Sled mode No.5	⏮key ⏭	All lamps light	• Pickup moves to the outermost track • Pickup moves to the innermost track * NOTE 3 (During playback, machine operates normally.)	SLED SERVO Check SLED mechanism operation

* NOTE 1: There are cases when the tracking servo cannot be locked owing to the protection circuit being operated when heat builds up in the driver IC if the focus search is operated continually for more than 10 minutes. In these cases the power supply should be switched off for 10 minutes until heat has been reduced and then re-started.

* NOTE 2: Do not press the ⏮or ⏭keys when the machine is in the ❚❚ status is active. If they are pressed, playback will not be possible after the ❚❚ status has been canceled. If the ⏮or ⏭keys are pressed in the ❚❚status, press the ■key and return to the start mode (No.1).

* NOTE 3: When pressing the ⏮or ⏭keys, take care to avoid damage to the gears. Because the sled motor is activated when the ⏮or ⏭ keys are pressed, even when the pick-up is at the outermost or innermost track.

4. Operation Outline
   The operation of each mode is carried out in the direction of the arrows from the start mode as indicated in the following illustration.



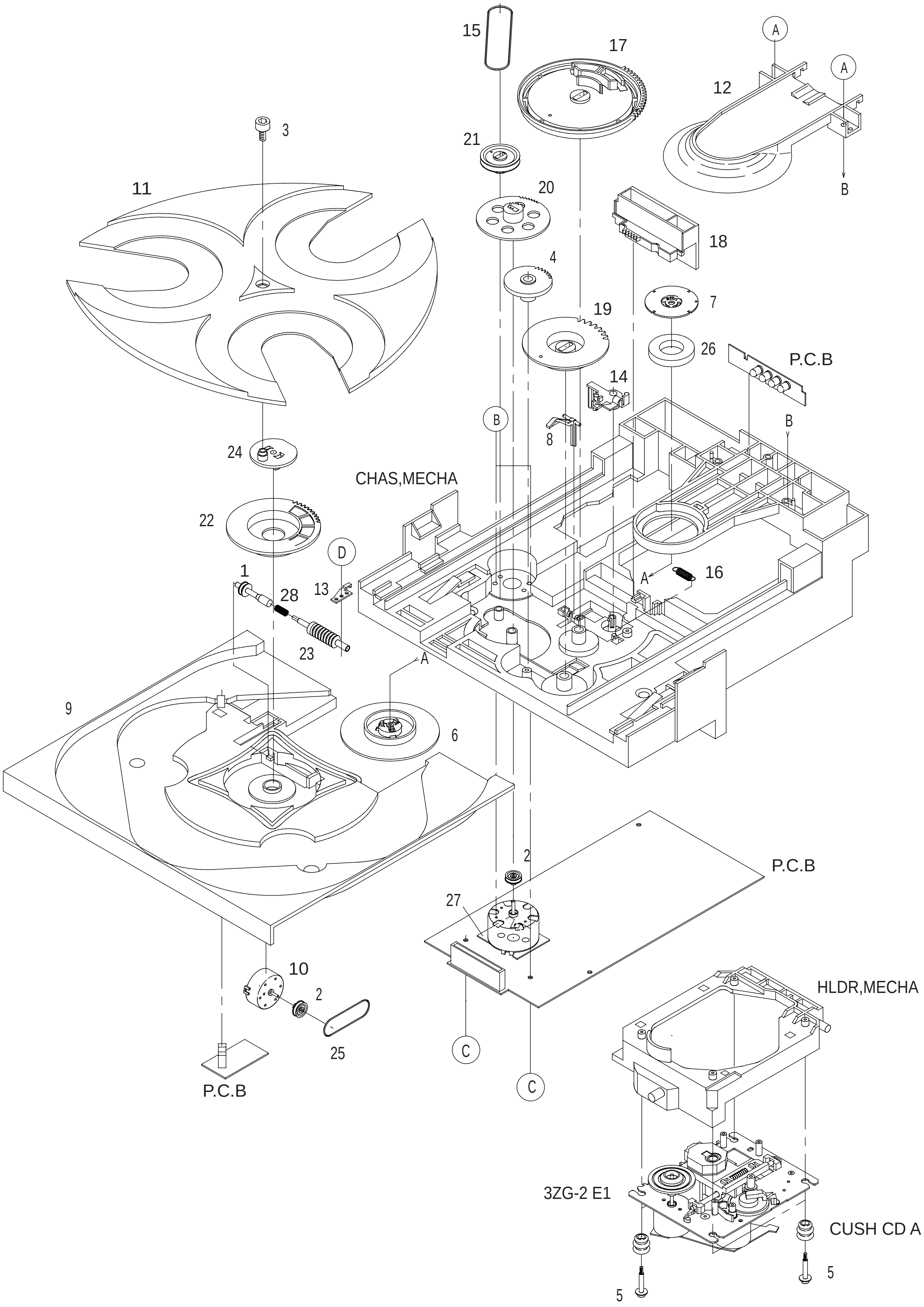
If the DISC DIRECT PLAY button is pressed, the machine performs the same operation as the PLAY button is pressed as shown. If the tray is opened by pressing OPEN/CLOSE button during Play mode or Traverse mode, the machine returns to the Start mode.

5. How to check the Automatic Adjustment Values
   The automatic adjustment values can be checked by pressing the square (■) button.
   FL display (displayed in hexadecimal values)

```
** ** **
│  │  └──────────────────► Tracking balance (00-0F)
│  └─────────────────────► Tracking gain (00-0C)
└────────────────────────► Focus bias (10-2F)
```

Note) The reference value is “20 08 08”.

MECHANICAL EXPLODED VIEW 1/1

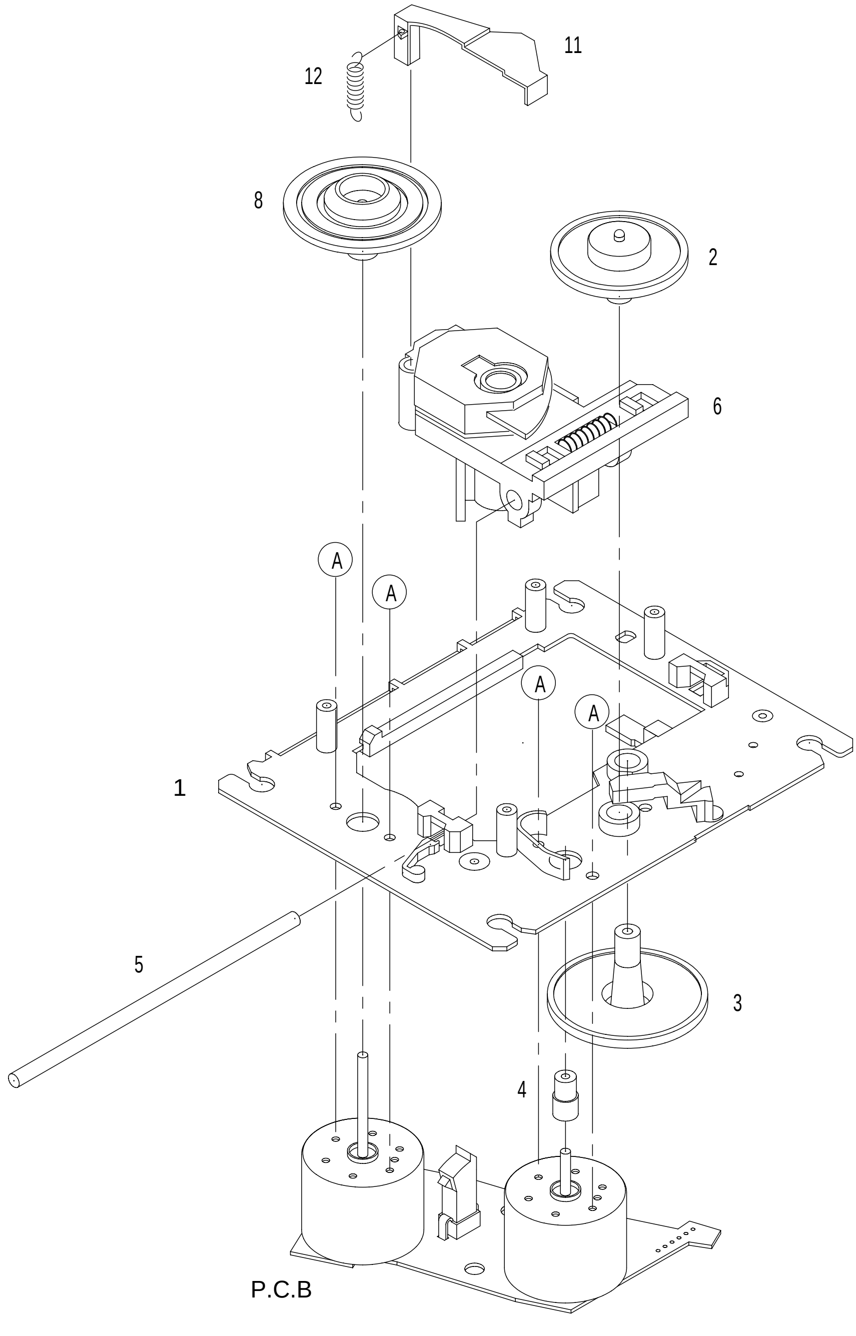

15
17
A
A
12
B
3
21
11
20
18
4
7
19
26
P.C.B
14
B
8
B
24
CHAS,MECHA
22
D
1
A
16
13
28
23
A
9
6
2
P.C.B
27
10
HLDR,MECHA
2
25
C
C
P.C.B
3ZG-2 E1
CUSH CD A
5
5

MECHANICAL PARTS LIST 1/1

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	84-ZG1-239-210		PULLY,WORM N
2	84-ZG1-267-010		PULLEY,LOAD MO 8
3	81-ZG1-239-010		S-SCREW,TT
4	81-ZG1-291-110		GEAR,TRAY RELAY NO3
5	81-ZG1-271-010		S-SCREW MECH REAR
6	81-ZG1-277-310		HLDR,MAGNET N
7	81-ZG1-255-110		PLATE,MAGNET MK2
8	83-ZG3-213-010		LVR,SW
9	84-ZG1-003-310		TRAY,NO2-B
10	87-045-364-010		MOTOR(BCH3B14)
11	84-ZG1-005-210		TURNTABLE,NO1(*)
12	84-ZG1-011-010		REFLECTOR,CD
13	84-ZG1-259-010		SPR-P,WORM
14	84-ZG1-208-210		LEVER,CAM
15	84-ZG1-209-010		BELT,SQ1.8-117.7
16	84-ZG1-211-010		SPR-E CAM S
17	84-ZG1-215-410		GEAR,MAIN CAM BLU
18	84-ZG1-216-310		SLIDE,MECHA CAM YEL
19	84-ZG1-205-110		GEAR,TRAY
20	84-ZG1-206-110		GEAR,RELAY
21	84-ZG1-207-010		PULLEY,RELAY
22	84-ZG1-221-010		GEAR,MAIN TT
23	84-ZG1-238-010		GEAR,WORM N
24	84-ZG1-224-010		LEVER,TT
25	84-ZG1-225-010		BELT,SQ1.0-63.3
26	83-ZG3-602-010		RING,MAG
27	87-045-305-010		MOTOR, RF-500TB DC-5V (2MA)
28	84-ZG1-248-010		SPR-C,WORM
A	87-067-703-010		TAPPING SCREW, BVT2+3-10
B	87-251-070-410		U+2.6-3
C	87-342-036-210		UT2+2-8
D	87-067-981-010		BVT2+3-6 BLK

CD MECHANISM EXPLODED VIEW 1/1 (3ZG-2 E1)



CD MECHANISM PARTS LIST 1/1 (3ZG-2 E1)

DESCRIPTIONで判断できない物は "REFERENCE NAME LIST" を参照してください。
If can't understand for Description please kindly refer to "REFERENCE NAME LIST".

REF. NO	PART NO.	KANRI NO.	DESCRIPTION
1	83-ZG2-243-110		CHAS ASSY,SHT
2	83-ZG2-235-010		GEAR,A3
3	83-ZG2-205-210		GEAR,B
4	83-ZG2-236-010		GEAR MOTOR 3
5	83-ZG2-240-010		SHAFT,SLIDE 3
6	87-A90-836-010		PICKUP,KSS-213F
8	83-ZG2-233-010		TURN TABLE,A5
11	83-ZG2-245-110		LEVER,SHUTTER
12	83-ZG2-250-010		SPR-E,SHT 2
A	87-261-032-210		SCREW V+2-3

USE MODEL LIST

- CX-NAK572
- CX-NK270
- CX-NK290
- CX-NK370
- CX-NK570
- CX-NK765
- CX-NK770
- CX-NK970
- DX-SNKH100

REFERENCE NAME LIST

ELECTRICAL SECTION

DESCRIPTION	REFERENCE NAME
ANT	ANTENNAS
C-	CHIP
C-CAP	CAP, CHIP
C-CAP TN	CAP, CHIP TANTALUM
C-COIL	COIL, CHIP
C-DI	DIODE, CHIP
C-DIODE	DIODE, CHIP
C-FET	FET, CHIP
C-FOTR	FILTER, CHIP
C-JACK	JACK, CHIP
C-LED	LED, CHIP
C-RES	RES, CHIP
C-SFR	SFR, CHIP
C-SLIDE SW	SLIDE SWITCH, CHIP
C-SW	SWITCH, CHIP
C-TR	TRANSISTOR, CHIP
C-VR	VOLUME, CHIP
C-ZENER	ZENER, CHIP
CAP, CER	CAP, CERA-SOL
CAP, E	CAP, ELECT
CAP, M/F	CAP, FILM
CAP, TC	CAP, CERA-SOL
CAP, TC-U	CAP, CERA-SOL SS
CAP, TN	CAP, TANTALUM
CERA FIL	FILTER, CERAMIC
CF	FILTER, CERAMIC
DL	DELAY LINE
E/CAP	CAP, ELECT
FILT	FILTER
FLTR	FILTER
FUSE RES	RES, FUSE
MOT	MOTOR
P-DIODE	PHOTO DIODE
P-SNSR	PHOTO SENSER
P-TR	PHOTO TRANSISTOR
POLY VARI	VARIABLE CAPACITOR
PPCAP	CAP, PP
PT	POWER TRANSFORMER
PTR, RES	PTR, MELF
RC	REMOTE CONTROLLER
RES NF	RES, NON-FLAMMABLE
RESO	RESONATOR
SHLD	SHIELD
SOL	SOLENOID
SPKR	SPEAKER
SW, LVR	SWITCH, LEVER
SW, RTRY	SWITCH, ROTARY
SW, SL	SWITCH, SLIDE
TC CAP	CAP, CERA-SOL
THMS	THERMISTOR
TR	TRANSISTOR
TRIMMER	CAP, TRIMMER
TUN-CAP	VARIABLE CAPACITOR
VIB, CER	RESONATOR, CERAMIC
VIB, XTAL	RESONATOR, CRYSTAL
VR	VOLUME
ZENER	DIODE, ZENER

MECHANICAL SECTION

DESCRIPTION	REFERENCE NAME
ADHESHIVE	SHEET ADHESHIVE
AZ	AZIMUTH
BAR-ANT	BAR-ANTENNA
BAT	BATTERY
BATT	BATTERY
BRG	BEARING
BTN	BUTTON
CAB	CABINET
CASS	CASSETTE
CHAS	CHASSIS
CLR	COLLAR
CONT	CONTROL
CRSR	CURSOR
CU	CUSHION
CUSH	CUSHION
DIR	DIRECTION
DUBB	DUBBING
FL	FRONT LOADING
FLY-WHL	FLYWHEEL
FR	FRONT
FUN	FUNCTION
G-CU	G-CUSHION
HDL	HANDOL
HIMERON	CLOTH
HINGE, BAT	HINGE, BATTERY
HLDR	HOLDER
HT-SINK	HEAT SINK
IB	INSTRUCTION BOOKLET
IDLE	IDLER
IND, L-R	INDICATOR, L-R
KEY, CONT	KEY, CONTROL
KEY, PRGM	KEY, PROGRAM
KNOB, SL	KNOB, SLIDE
LBL	LABEL
LID, BATT	LID, BATTERY
LID, CASS	LID, CASSETTE
LVR	LEVER
P-SP	P-SPRING
PANEL, CONT	PANEL, CONTROL
PANEL, FR	PANEL, FRONT
PRGM	PROGRAM
PULLY, LOAD MO	PULLY, LOAD MOTOR
RBN	RIBBON
S-	SPECIAL
SEG	SEGMENT
SH	SHEET
SHLD-SH	SHIELD-SHEET
SL	SLIDE
SP	SPRING
SP-SCREW	SPECIAL-SCREW
SPACER, BAT	SPACER, BATTERY
SPR	SPRING
SPR-P	P-SPRING
SPR-PC-PUSH	P-SPRING, C-PUSH
T-SP	T-SPRING
TERM	TERMINAL
TRIG	TRIGGER
TUN	TUNING
VOL	VOLUME
W	WASHER
WHL	WHEEL
WORM-WHL	WORM-WHEEL

サービス技術ニュース	
番号	連絡内容
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アイワ株式会社
AIWA CO.,LTD.

912162

Tokyo Japan

〒110　東京都台東区池之端1-2-11　☎03（3827）3111（代表）

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